# Transcript

I-5 U 15/17

2 O 285/15 Essen Regional Court



Announced on 28.05.2025

Teiner, Legal Secretary as clerk of the court registry

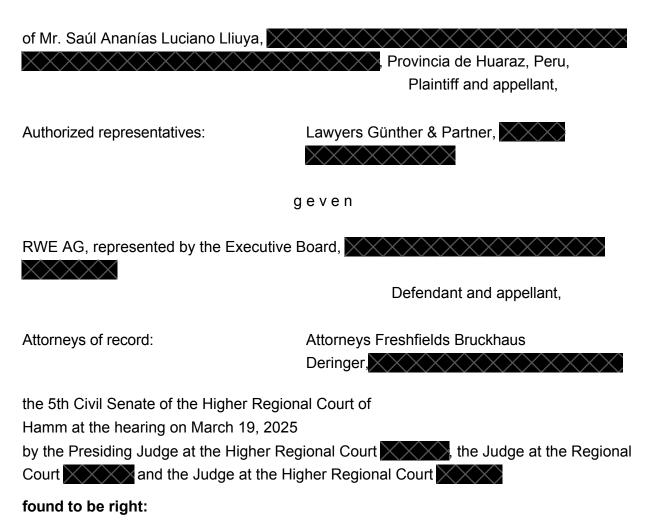
Hamm Higher Regional

# **Court ON BEHALF OF THE**

# PEOPLE

Verdict

In the legal dispute



The plaintiff's appeal against the judgment of the Regional Court of Essen announced on December 15, 2016 (case no.: 2 O 285/15) is dismissed.

The plaintiff is ordered to pay the costs of the appeal proceedings.

This judgment and the contested judgment are provisionally enforceable without the provision of security.

The appeal is not permitted.

The amount in dispute is set at

## **Reasons:**

Α.

The parties are in dispute about possible claims of the plaintiff due to an alleged impairment of his property by the defendant due to the operation of power plants and the associated warming of the earth's climate.

The defendant is the parent company of the RWE Group. Its subsidiaries are predominantly active in the field of energy generation. Large quantities of greenhouse gases, in particular <sub>CO2</sub>, are released by the subsidiaries, especially in connection with coal-fired power generation. The subsidiaries' emissions are not prohibited by law. They have been subject to the Greenhouse Gas Emissions Trading Act (TEHG) since 2011; the requirements stipulated therein have always been complied with.

The plaintiff, a farmer and mountain guide by profession, is the co-owner of a plot of land with a residential building on

of Huaraz in the Ancash region of Peru. Together with his partner he acquired the property, which is located around 25 km southwest of Laguna Palcacocha, from his parents by way of anticipated succession at the beginning of May 2014. His parents had acquired and built on this property in 1984.

Huaraz lies at the foot of the largest and northernmost mountain range in the tropical Andes, the Cordillera Blanca. It lies below the Palcaraju glacier and on the

At the foot of the mountains Nevado Palcaraju (6,274 m) and Nevado Pucaranra (6,156 m) at an altitude of around 4,560 m is the glacial lake Laguna Palcacocha.

The lagoon is dammed by a natural moraine (rock debris deposited by the glacier). It collects meltwater from the glacier above and rainwater, which can only drain away to a limited extent by natural means. At the end of the 1930s, the lagoon held a water volume of 10 to 12 million m<sup>3</sup>.

Earthquakes and landslides occasionally occur in the Ancash region. Several lagoons have been affected by glacial lake outburst floods (GLOF) in the past. In 1941, the terminal moraine damming Laguna Palcacocha broke. A flood wave with a mudslide then destroyed large parts of the city of Huaraz and claimed several thousand lives. The cause of the break in the terminal moraine wall is not known.

Bans on settlements in the flood corridor were discussed, but the plans failed due to resistance from the local population.

On May 31, 1970, a magnitude 7.9 earthquake struck Peru, causing devastating damage in Huaraz and the surrounding area. The artificial dam and drainage channel in place at the time were damaged. There was no ice or glacier collapse or rock slide.

Since the glacial lake outburst in 1941, the authorities have taken various protective measures to reduce the volume of water in the lagoon in the long term and to reduce the risk of a tidal wave emanating from the lagoon. In particular, a new safety dam with a height of eight meters (the so-called primary dam) was built in 1974 over a drainage pipe with a diameter of 48 inches (121 cm) and a second artificial dam (the secondary dam) without an outlet was built on the right-hand side - looking downstream from the lake. Since then, the lake no longer has any natural outlets.

In 2003, the detachment of glacial ice and the sliding of moraine material into Laguna Palcacocha led to an overflow of the two artificial walls and parts of the ground moraine wall. The lake volume was subsequently almost 4 million m<sup>3</sup>.

In 2009, the volume of water in the lagoon had risen to over 17.3 million m<sup>3</sup>, which is why the authorities declared a state of emergency from January 2011. The state of emergency was lifted at the end of 2012.

With further measures, in particular the installation of six siphon pipes with control valves (so-called "siphons") with a diameter of 10 inches (25.4 cm) each in May 2012, the water level of the lagoon was subsequently lowered to around 12 million m<sup>3</sup>. In February 2016, a water volume of 17.4 million m<sup>3</sup> was measured again. As a result, six more siphon pipes with a diameter of 10 inches were installed.

Three smaller glacier ice avalanches occurred between 31/05/2017 and 02/06/2017. There was no overflow or damage to the ground moraine wall or the two artificial dams.

From mid-April 2018 until 2021, an early warning system was installed at the lagoon by the responsible authorities.

On 05.02.2019, 17.01.2021 and 23.01.2024 - during the ongoing procedure - an ice/snow avalanche fell into the lagoon without any consequences for the city of Huaraz.

In the present action, the plaintiff sought a declaration in the first instance that the defendant was obliged to bear the costs of suitable protective measures in favor of his property against a glacier flood from the lagoon in proportion to its contribution to the impairment. In the alternative, he demanded that the defendant ensure that the water volume of the lagoon is reduced in accordance with its contribution to the cause. In the further alternative, he asserted claims for payment of the "Waraq community association" and the summer that the summer the further alternative.

According to the plaintiff, the defendant has the right to claim under Section 31 of the German Civil Code, as the construction and operation of the power plants are not based on decisions made by its subsidiaries, but on decisions made by the defendant's parent company. The defendant de facto controls the greenhouse gas emissions of the operating companies belonging to the group.

His claim for removal of the impairment of his property caused by the glacier flood resulted from § 1004 para. 1 BGB. It was

4

It is irrelevant that this is a matter in which a large number of polluters are involved. No monetary claim for compensation was asserted, but rather the claim for elimination of the (impending) impairment converted into a monetary claim. The defendant is only being held liable in relation to its share of responsibility.

His, the plaintiff's, property is impaired as a result of the climate-induced glacier melt and the resulting threat of glacial lake outburst floods. The impairment consists in the concrete endangerment of his property due to the reduced stability of the glacier and the increased water level of the lagoon located above the property as a result of the global rise in temperature. A flood-triggering avalanche or a landslide above the lagoon is possible at any time. A glacial lake outburst flood, which could trigger a massive flood wave and also bring mud and debris with it, could be caused by flooding of the natural moraine dams or by the breaking of the dams. Despite the precautions taken so far, the water level has reached a dangerous level again, making a GLOF very likely. The risk of flooding is so real that it is now only a matter of chance and no longer depends on factors that can be influenced as to when the risk materializes. Due to the defendant's ongoing emissions, among other things, the water level continues to rise, so that flooding of the plaintiff's property is inevitable without protective measures. If flooding were to occur due to a breach or flooding of the dams, the plaintiff's property would also be affected by absolute destruction or at least considerable erosion. The plaintiff referred to a private expert opinion by Emmer (Annex K 37, Annex II).

The melting of the glaciers (also) in the Peruvian Andes has been caused and intensified by anthropogenic climate change, in particular by greenhouse gas emissions, including those of the defendant. Without the anthropogenic greenhouse effect, the water level of Laguna Palcacocha would not be as high as it is at present, and the risk of chunks of ice breaking off the glacier with the devastating consequences of flooding would be lower. It is impossible that the melting of the glacier would be so advanced without anthropogenic climate change. The plaintiff argues that the defendant is a trustee by controlling the issuing activities of its subsidiaries.

The defendant's actions are causal. Its share of German greenhouse gas emissions is 21.59%, its share of global <sub>CO2</sub> emissions in the period from 1965 - data for earlier periods is not available - to 2010 is approx. 0.47%. To the latter extent, it has therefore contributed to global climate change and thus to the melting of the glacier and the state of the lagoon. The defendant's specific contribution to the cause can be calculated and measured using scientific methods. In this respect, it is permissible to refer to the so-called "Heede Study" (Heede (2014), Carbon Majors: Accounting for carbon and methane emissions 1854 - 2010; Annex K 24 to the statement of claim (CD), p. 50 of the A.) should be used.

Because this is a case of cumulative causality, the conditio sine qua non formula must be applied in a modified form. Accordingly, the (worldwide) emissions of each individual CO2 emitter could not be disregarded without the risk of impairment of the plaintiff's property being lower. Without the amount of greenhouse gases emitted by the defendant, the concentration of greenhouse gas molecules in the atmosphere would be lower, the rise in temperature would be lower, the glacier above Laguna Palcacocha would have melted less, the lagoon would not have such a high water level and therefore the risk to the plaintiff's property from a glacier flood would be less dramatic.

The defendant had also adequately caused the damage to property due to the foreseeability of the effects of its actions. Since the beginning of the 20th century, it had not been completely improbable for a company such as the defendant that CO2 emissions could lead to a global rise in temperature and consequently to the melting of glaciers. In any case, since November 1988 with the establishment of the Intergovernmental Panel on Climate Change (IPCC), the public has been informed about the cause-effect relationship of climate change in question through media reporting.

The unlawfulness of the interference with property is indicated in the present case; there is no obligation to tolerate the interference pursuant to Section 1004 (2) BGB.

The claim was also not time-barred. It is a permanent act; in any case, the claim for removal is triggered anew each time by the defendant's repeated emissions. Moreover, the plaintiff had the opportunity to take note of the facts giving rise to the claim at the earliest after the publication of the IPCC's 5th Assessment Report in April 2014.

There was no contributory negligence on his part, as the property, which had been in the family since 1984, had been passed on to him by way of anticipated inheritance and there had been no ban on settlement despite the devastating event in 1941.

The consequences of climate change and the resulting threat of damage to the plaintiff's property could be averted by protective measures. In this respect, lowering the water level of the lagoon would be effective, whereby a water depth of the lake of 58 m and a volume of approx. 7 million m<sup>3</sup> would be considered technically safe. Such a measure would (estimated) involve total costs of around The defendant would have to bear around this in accordance with its contribution to the cause.

The plaintiff also argued that the defendant should also reimburse him for some of the expenses he had invested in making his house flood-proof. To this end, he provided evidence and claimed that - as he could not expect a quick solution due to the court proceedings - he had extended his house from January to April 2016 by creating a second floor and reinforcing the outer walls with cement and bricks. He had incurred costs o for the conversion work. The defendant had to reimburse half of these costs, i.e. Second second flood events; however, it could not be guaranteed that his property would not be damaged by a (stronger) flood wave emanating from Laguna Palcacocha.

The plaintiff filed a motion at first instance,

to establish that the defendant obliged is pro rata to its contribution to the impairment (share of global greenhouse gas emissions),

7

to be determined by the court pursuant to Section 287 ZPO, to bear the costs of appropriate protective measures in favor of the plaintiff's property against a glacial flood from the Palcacocha Lagoon;

in the alternative,

order the defendant to take appropriate measures to ensure that the volume of water in the Palcacocha lagoon is reduced in accordance with the defendant's contribution to causation, to be determined by the court pursuant to Section 287 ZPO;

further in the alternative,

order the defendant to pay to the Waraq community association its share of f the protective measures suitable for the protection of the plaintiff;

in the extreme alternative,

order the defendant to pay the plaintiff

The defendant has requested

that the action be

dismissed.

It has already deemed the claims to be inadmissible. The main claim was not sufficiently specific and the plaintiff lacked the necessary legal interest in the requested determination. An estimate of its alleged "impairment contribution" by the court is ruled out, as Section 287 ZPO does not apply to the reason for liability. It was also not apparent how and to what extent she could reduce the water volume of the lagoon in accordance with her contribution to the cause.

The action was also unfounded.

There is no legal basis for the liability of an individual for the alleged consequences of global climate change. According to the will of the legislator, cumulative, distant and long-term consequential damages are not to be regulated by means of individual liability law, but require an independent legal basis.

Solutions to climate change can only be implemented at the state and political level.

If Section 1004 (1) BGB is nevertheless deemed applicable, the requirements for this claim are not met.

The plaintiff had not sufficiently demonstrated a serious threat to property in the sense of an imminent, acute danger. The mere abstract danger of flooding is not sufficient to justify a claim for defense. It, the defendant, denied that the lagoon currently posed a high or acute risk of flooding and that an outburst of the lake could be expected at any time. In particular, the possibility of a dam bursting is disputed. The installation of the overflow pipes in May 2012 had lowered the water level by 4.30 m in the four subsequent months; by June 2015, the water volume had been reduced to 12 million m<sup>3</sup>. After all this, there was no danger to the plaintiff's property.

It, the defendant, is not a disruptive party. It is disputed that the power plant companies of the RWE Group have a historical share of global greenhouse gas emissions of 0.47%. Nor can any share of emissions be equated with an alleged contribution to climate change or the melting of glaciers. There is no causal link between their activities and an alleged flood risk emanating from the glacial lake. There is no individualizable causal relationship as required by the theory of equivalence. The defendant points out that emissions from an incomprehensible number of emission sources mix with each other in the atmosphere, combine with natural greenhouse gases and are absorbed into the cycle of gas exchange between the atmosphere, the oceans and the land ecosystems or are partially broken down again by chemical processes. It argues that due to the interaction of the various greenhouse gases in the highly complex climate system with numerous other factors such as the sun, clouds, aerosols, volcanoes, land use changes and agriculture, which in turn overlap with internal climate fluctuations (atmospheric and oceanic circulations) and are amplified or attenuated by feedback effects, no linear chain of causation from a single emitter - here: the defendant - to an event - here: the alleged flood risk - can be established. In this context, the defendant also referred to alternative causes - such as El Niño events and local

soot and dust emissions in the area around Huaraz - for the melting of the glacier. It is obvious that, in addition to the natural moraine, the artificial dams built in 1974 also contributed to the rise in the lake level and that this was tolerated by the authorities with a view to securing the (drinking) water supply for the population. As far as the volume of water in the glacial lake was concerned, the safety of the lagoon on the one hand and its function as a drinking water reservoir on the other were conflicting interests.

In any case, there was no adequate causation. The chain of circumstances relevant here, in particular the development after the eruption of the lagoon in 1941, could not be influenced by the defendant and could not have been foreseen during the operation of the power plants. Finally, any favoring of the flood risk by them was also not significant.

If an impairment - as in this case - is exclusively due to natural forces, i.e. was not made possible by the interferer's own actions or caused by an omission in breach of duty, a defense claim under Section 1004 BGB is ruled out in any case. In the so-called "Wollläuse" and "Mehltau" rulings, the Federal Court of Justice clarified that a guarantor position/obligation to ensure safety is required in the event of disruptions caused by natural phenomena, which the defendant does not have. It is not the operator of the power plants, and they are operated with the necessary permits under immission control law and are socially acceptable.

There was also no unlawful act. In the case of acts of omission and events with only an indirect effect, unlawfulness is not indicated - contrary to the plaintiff's legal opinion.

If the plaintiff had any claims for defense or compensation, these would in any case be excluded due to his contributory negligence in accordance with Section 254 BGB. The plaintiff had only acquired the property at issue in 2014, i.e. at a time when, according to the plaintiff's account, there was already an acute and high flood risk.

In addition, the plaintiff's possible claims were time-barred. The plaintiff and the previous owners of the property were aware of the flood risk, which allegedly still exists today, for the first time in 2009 at the latest. A

Any claim pursuant to Section 1004 (1) BGB would therefore be time-barred at the end of 2012.

Ultimately, the legal consequence of cost sharing sought by the plaintiff cannot be derived from Section 1004 (1) BGB.

The defendant has disputed the plaintiff's submission on the alleged conversion measures of his house, their suitability for flood protection, the costs allegedly incurred for this, the authenticity of the invoices submitted and the list of the alleged own work with ignorance.

The Regional Court dismissed the action in its judgment of 15.12.2016 (p. 427 et seq. of the file).

In its reasoning, it stated that the main application and the first and second auxiliary applications were already inadmissible due to a lack of sufficient certainty. The reference to Section 287 ZPO contained in the main and first alternative application was not sufficient. The second auxiliary request was not enforceable as the Spanish name and the legal personality of the "Waraq municipal association" were not recognizable.

The application for payment of the plaintiff (made in the extreme alternative) was admissible but unfounded. The plaintiff has no claim against the defendant under Section 1004 (1) sentence 1 BGB in conjunction with the law of unjust enrichment. Management without mandate or enrichment law. Whether an impairment of the plaintiff's property in the form of an acute flood risk actually existed could be left open. In any case, the defendant was not a disturber, as there was no equivalent causation of the impairment. The defendant's greenhouse gas emissions could be thought away without the alleged flood risk being averted. Moreover, the emission contributions of all emitters were indistinguishably mixed. With such an excess of causal contributions, individual damages and impairments could not be attributed individually to their polluters. The principles of the so-called forest damage judgment of the BGH were also applicable in the present case. In addition, there is a lack of adequacy, as the share of the individual emitter, even a major emitter such as the defendant, does not significantly increase the possible consequences of climate change.

The Regional Court rejected the application for correction of the facts submitted by the defendant in its statement of 05.01.2017 (p. 445 of the file) by order of 31.01.2017 (p. 457 f. of the file).

The plaintiff lodged an appeal against the judgment served on his legal representatives on 28.12.2016 with the court on 26.01.2017 and substantiated it on 24.02.2017.

He continues to pursue his first-instance claim in principle, but has partially amended his claims and withdrawn the second auxiliary claim (payment to the Waraq municipal association).

He believes that the Regional Court violated Section 139 ZPO as it did not point out that it considered the main application and two auxiliary applications to be inadmissible and had reservations with regard to Section 287 ZPO. It was sufficient to comply with the principle of certainty if the court's determination of the contribution to impairment was based on Section 287 ZPO. This provision is applicable in the case of contributory causation by several issuers and - at least under considerations of equity - can also be used in the context of causality filling liability. The contributory causation of the defendant was established in the case in dispute, only the extent of the legal responsibility was disputed.

With reference to several private expert opinions - in particular the expert opinions of Prof. em. Dr. Haeberli (University of Zurich) dated 10.03.2022 (Exhibit BK 28, p. 2720 et seq. of the file) and from January 2024 (Exhibit BK 37) as well as the so-called "expertise" on the court expert opinion of 22.01.2024 (Exhibit BK 35) with the "Extended Report" by the engineering firm BGC (Annex BK 36, all Annex volumes XIV) - that a high-risk situation or a "maximum hazard level" exists at Laguna Palcacocha. The GLOF hazard posed by the glacial lake for Huaraz

has become a critical threat as a result of the retreat of the Palcaraju glacier and is currently rated as very high. The expansion of the lagoon into the area where the glacier was previously located has increased both the probability and the potential extent of a glacial tidal wave. The decisive factors are the changed geometry of the glacier, in particular the increasing steepness of the glacier tongue, as well as the increase in the area and volume of the lagoon. Another risk factor is the degradation of the permafrost due to the rise in temperature, which impairs the stability of the mountain slope and increases the likelihood of rockfalls and landslides. As the lake has now extended to the foot of the surrounding steep slopes, the dominant hazard aspect is not glacier instability, but the risk of a large-scale (combined) rockfall and landslide.

/ice fall, resulting in the displacement of large parts of the lake volume, massive flooding of the dam section and extreme high water/mudflow. Due to the high speed of such an event, peak discharges that exceed the 1941 event are to be expected for the resulting flood wave in the worst-case scenario. Even extreme major events could only become apparent a few days in advance. For the steep slopes and hanging glaciers above the lagoon, large falls into the lake are likely to be century to millennium events. Although this means that such an event statistically occurs once every century or millennium, it could also occur in just a few weeks. The occurrence of damage is therefore foreseeable in the legal sense. The relevant threat to the plaintiff's property is not primarily seen in a break in the natural moraine, but above all in a glacial tidal wave caused by glacier break-offs, rock or ice avalanches or landslides that wash over the natural moraine. However, the breakage of the dams and/or the terminal moraine cannot be ruled out.

The plaintiff further claims that temperatures have risen all over the world and also at Laguna Palcacocha. Referring to a study by Stuart-Smith et al. (2021, see Exhibit BK 19/20, p. 2263 et seq. of the file), he also states that around 95% of the regional warming in Huaraz is due to anthropogenic climate change and that the significant retreat of the Palcaraju glacier is essentially due to this warming.

The fact that the burning of fossil fuels by mankind and the resulting CO2 release contributes to global warming , is in

This has been recognizable in scientific circles since the research of the physicist Svante Arrhenius (1859-1927), but at the latest since the data analyses of Charles D. Keeling in 1958.

The defendant's emissions are partially causal for the present danger to the plaintiff's property. Contributory causation in the sense of partial causality must be sufficient for the assumption of the requirements of § 1004 para. 1 BGB, since every contributory cause necessarily also sets a consequence in the legal sense. Without the defendant's contribution, the risk of flooding would be lower with a correspondingly lower water volume of the lagoon. A "noticeable" reduction of the (overall) impairment is not required. It is sufficient for the attribution of liability according to the conditio sine qua non formula if only the probability of the occurrence of damage increases. The defendant's share of causation was measurable and calculable. The additional external partial causes - for which the defendant has the burden of proof - do not change the contributory causation of the defendant's actions to the global rise in temperature since the middle of the 19th century. In this respect, the plaintiff refers to the report "CDP - The Carbon Majors Report 2017" (Exhibit BK 6, Annex IV), which supplements and updates the so-called "Heede Study".

The plaintiff repeats his submission that the defendant is the party at fault. The breach of a duty to maintain public safety is not a prerequisite. The basis of the claim for removal of the disturbance is not the unlawfulness of the act in question, but the disturbance of property that the plaintiff cannot tolerate, i.e. an unlawful result. Furthermore, the defendant also acted in breach of duty, as it breached its duty of care in knowledge of the physical connections in question.

Insofar as the defendant invoked for the first time at second instance that it was not responsible for the greenhouse gas emissions of its subsidiaries, this submission was late and must be rejected as inadmissible.

The plaintiff believes that the volume of the lagoon at the time of the hearing at first instance and the existence of a risk of flooding to his house from the lagoon were bindingly established by the Regional Court in the facts of the case.

A possible early warning system, on which the defendant relies, may be suitable for saving human lives, but does not protect his property from being damaged by a flood.

A limitation period is not set in motion due to the existence of a continuous act; in any case, his claim for removal is triggered anew each time due to the defendant's repeated emissions. The plaintiff repeats his submission at first instance, according to which he did not recognize a causal link between the anthropogenic greenhouse gas emissions and the melting of the glaciers in the tropical Andes until after the publication of the 5th Assessment Report of the IPCC in April 2014.

The claim now asserted against the defendant in the second main claim for payment of half of the costs invested by him for the protective measures on his house - plus interest arises from § 1004 BGB in conjunction with §§ 684 bgb. §§ SECTIONS 683, 684 BGB. Only half of the costs actually incurred were taken into account in order to take into account the increase in the market value of his house as a result of the work. The plaintiff provides more details on the individual measures, their costs and the increase in the value of the house (see in particular the statement of 17.10.2022 with annexes, p. 2991 et seq. of the file).

Even if the withdrawal and discharge of 81,780 m<sup>3</sup> of water from the lagoon - in accordance with the application under 4. (= second auxiliary application) - could indisputably not eliminate the existing flood risk and thus the disturbance sustainably or conclusively, a water withdrawal would at least slightly reduce the risk; this would represent a minus to the overall elimination of the disturbance.

At the hearing on March 17/19, 2025, the plaintiff filed the motions regarding 1. and 4. announced in the pleading dated January 27, 2021 (p. 2083 et seq.) with the proviso that the defendant's share of global greenhouse gas emissions was no longer 0.47%, but now 0.38%. With regard to the difference of 0.09 %, he declared that the action was partially settled.

The defendant objected to the declaration of partial settlement.

The plaintiff finally (analogously) applies,

1.	to establish	that	the	defendant	obliged is		pro rata	to its share
	of the impairme	nt	of	0,38	%(share	of	the	global

greenhouse gas emissions) to bear the costs of appropriate protective measures in favor of its property from a glacial flood from Laguna Palcacocha (coordinates: 9°23'36.72 "S; 77°22'39.10 "W), to the extent that the plaintiff is burdened with these costs;

2. order the defendant to pay the plaintiff plus interest from the pendency of the action;

#### alternatively

3. declare that the defendant is obliged to bear the costs of suitable protective measures in favor of his property (cf. no. 1) against a glacier flood from Laguna Palcacocha in proportion to its contribution to the impairment, which is to be determined by the court in accordance with § 287 ZPO;

## further alternatively

 order the defendant to take appropriate measures to ensure that the volume of water in Laguna Palcacocha is permanently reduced by 0.38%, i.e. 81,780 m<sup>3</sup>, from its current level of 17.4 million m<sup>3</sup>;

## further alternatively

5. order the defendant to take appropriate measures to ensure that the volume of water in Laguna Palcacocha is permanently reduced from its current level of 17.4 million m<sup>3</sup> in accordance with the defendant's contribution to causation, which is to be determined by the court pursuant to Section 287 of the German Code of Civil Procedure (ZPO).

The defendant requests,

dismiss the appeal.

It defends the judgment of the Regional Court, expanding and supplementing its arguments at first instance.

It also considers the amended applications, with the exception of the application for payment, to be inadmissible.

The amendment to the first main application was a concealed partial withdrawal, which would have required her consent pursuant to Section 269 (1) ZPO. In addition, the application was inadmissible because it was directed at the existence of a future legal relationship that could not be established. The legal consequence of an obligation to reimburse costs does not arise from Section 1004 (1) BGB; a claim for removal and injunctive relief under Section 1004 BGB is at best a preliminary question for a - legally independent - claim under Sections 683, 670 BGB. The legal relationship to be determined in accordance with the main application lies solely in an alleged management without mandate and any claims arising from this. Since the claim under Section 1004 BGB, which is a preliminary question, is already unenforceable, a subsequent claim under the law of agency without authority or the law of unjust enrichment cannot arise. If - as in this case - no expenditure has yet been incurred, there is no legal relationship arising from agency without authority; rather, a claim for reimbursement of expenses pursuant to Sections 683, 670 BGB is newly established by each individual expenditure. If the expenses were incurred in the future, a legal relationship would only arise then.

Furthermore, the application is indefinite, as it remains unclear which measures are suitable. The specificity of the application also does not result from a possible right of choice of the disturber, since protective measures should not be taken by the defendant itself, but by the plaintiff or third parties.

The plaintiff lacks a need for legal protection, as it is unclear whether he will be burdened at all and with what costs in the future with regard to the protective measures taken. The need for legal protection is also lacking due to the disproportion between the insignificant economic value or the expense and the costs of the proceedings. According to the defendant's invoice, the plaintiff could at most demand with the first main claim: Based on costs for safety measures amounting to and a distribution of these costs among the approximately 50,000 inhabitants of the city of Huaraz, each inhabitant - including the plaintiff - would have to bear the defendant's share of responsibility of 0.47% claimed by the plaintiff - which the defendant again denies - corresponds to an amount of Finally, there was no interest in or need for legal protection because the plaintiff had already undertaken years ago to pay any amount claimed to the provincial government.

In any event, the amended first main claim is inconclusive. The plaintiff has not yet submitted that any third party has carried out protective measures on which a claim could be based and that he has already incurred or will incur costs in this regard. It is denied with ignorance that there is a legal basis under Peruvian law to take recourse against the plaintiff for the alleged costs of any protective measures carried out by authorities or other third parties. According to the opinion obtained by the defendant, the Peruvian law firm (Annex B 70, p. 3215 et seq. of the file), a claim against the plaintiff is currently legally excluded, but in any case not sufficiently probable.

Moreover, the defendant denies that the plaintiff would be able to take further measures on his own property at all or with reasonable effort and that such measures would be suitable to avert the alleged danger.

The first main claim is also legally unfounded because the requirements of management without mandate are not met. The Peruvian authorities were obliged to eliminate the alleged flood risk for the population, so that the plaintiff primarily had to make a claim against them. If a public authority takes action, the requirements for acting without a mandate are therefore excluded in any case.

The application of Section 1004 BGB in the present case is also incompatible with the rest of the legal system. It, the defendant, fulfills an important task of public welfare by supplying energy to the population and has received permits for this under the BImSchG and the TEHG, within the framework of which it operates. In addition to its security obligations based on public law standards, there is no room for corresponding general civil law obligations. There is no unlawful interference with a legal interest due to this aspect alone. Moreover, it did not act unlawfully; it was not the possible unlawfulness of the result that should be taken into account, but rather the unlawfulness of the disruptive act. The defendant - with reference to voices in the literature - provides more details on this.

The historical legislator of 1900 did not have climate change in mind. Rather, it assumed that the passing on of imponderables did not constitute an infringing act, provided that the act itself was not prohibited. Furthermore, it follows from the explanatory memorandum on the implementation of the

EIA Directive that general environmental pollution could not be regulated by individual liability law. § According to the purpose of the law, Section 1004 (1) BGB therefore does not establish unlimited, strict causal liability for climate impacts, no matter how remote, indirect and uncontrollable for individuals. A different understanding of the law would lead to an unintended "total liability" of every emitter and make economic development impossible. This is because anyone who is allegedly affected by climate change could take action against any emitter. This cannot be right; instead, a solution must be found at intergovernmental level. Individual liability for an economic activity that is in itself lawful and socially appropriate would constitute a disproportionate interference with the defendant's fundamental rights under Article 12(1) and Article 14(1) of the Basic Law. Any cumulative damages to be taken into account are part of the general risk of life, which must be accepted without compensation.

The defendant continues to deny any imminent impairment of the plaintiff's property. The fact that the plaintiff's property would also be affected by flooding in the scenarios of a small and medium avalanche is disputed. The probability of a large avalanche is - if at all - only low; the plaintiff has not presented and proven a serious and imminent danger of flooding for his property. There were no indications of a developing or imminent glacier instability of significant dimensions. In this respect, the defendant refers, among other things, to the studies by Kos et al. (2021, Annex B 67/68, Annex VI) and to the opinions of the private experts Prof. Dr. Amann et al. (RWTH Aachen) and Prof. Dr. Funk (ETH Zurich) from March 2019 (Annex B 61, Annex V and p. 1774 et seq. of the annex) as well as Prof. Dr. Amann and Prof. Dr. Schüttrumpf from November 2021 (Annex B 66, Annex VI). The study by Stuart-Smith et al. (2021) referred to by the plaintiff deals solely with the potential danger of a GLOF event, but not with an actually existing concrete or even only latent danger to a glacial lake. The probabilities of debris avalanches/rockfalls and ice avalanches have not changed between pre-industrial and modern times. Stuart-Smith et al. (2021) did not consider natural and artificially created protective structures at the lagoon, nor did they consider the questions of whether there were concrete indications of the occurrence of a trigger event, what effects this could have and how high the potential magnitude/intensity of any GLOF event could be. Insofar as the

The plaintiff who now claims that a possible trigger of a GLOF event is a rockfall due to degradation of the permafrost has not provided any concrete evidence of such rock instabilities. Large-scale rockfalls would always presuppose a weakness in the geological structure that had developed over the long term - thousands of years. As a precautionary measure, it is disputed that the geological conditions for such rock instability exist above Laguna Palcacocha and that a rockfall could occur.

The defendant's submission on the flood risk to its property alleged by the plaintiff was not late, but was admissible pursuant to Section 531 (2) ZPO. The (negative) decision of the regional court of 31.01.2017 to correct the facts violated their right to be heard; the Senate is not bound by any findings of the regional court regarding a flood risk.

The defendant further claims that the siphons installed at the lagoon could pump out a water volume of 108,000 m<sup>3</sup> per day. Unless there are particularly strong natural lake level fluctuations, as could be the case in connection with El Niño, the siphons could in principle lower and control the volume of water. As the local population is dependent on Laguna Palcacocha as a water reservoir, a permanent lowering of the water level is not sufficiently likely.

The defendant again - repeating and deepening its first instance submission - denies its status as a disturber within the meaning of Section 1004 BGB. The emissions of its power plant companies are not a contributory or partial cause of the melting of the glaciers in the Peruvian Andes and the alleged risk of flooding in Huaraz, even if the conditio sine qua non formula is modified. Climate change as a general risk to life is not controlled by anyone. The possible contribution of a single emitter is too small in itself to cause an increase in temperature. The contribution of an individual emitter to the development of a particular glacier could also not be established with the certainty required under Section 286 ZPO, especially as it could not be equated with a causal contribution. A linear causality between a certain emission and the temperatures at a certain time at a certain place on earth does not exist due to the multi-layered processes of the climate. Climate models are unsuitable for any proof of causality. The plaintiff had also failed to prove a specific rise in temperature in

He did not claim a specific time period at the lagoon, nor did he substantiate a loss of mass of the glaciers there.

The defendant also disputes the existence of an adequate causal link. It argues that ignoring its alleged contribution to causation does not lead to any change; its emissions have not measurably increased any flood risk. Moreover, the share of emissions of 0.47% and 0.38% claimed by the plaintiff only refers to industrial CO2 emissions, but not to all CO2 emissions or even greenhouse gases as a whole. It is disputed that, based on a study by Charles D. Keeling, it was already foreseeable for an optimal observer from 1958 onwards that increasing CO2 emissions would lead to global warming and the associated consequences. Objective recognizability could be assumed at the earliest with the United Nations Framework Convention on Climate Change from 1992.

Ultimately, there were no factual grounds for imposing responsibility for the event on her, nor had she acted in breach of duty. Cases of omission in breach of duty and indirect impairments are not to be resolved in the context of Section 1004 BGB at the level of unlawfulness/tolerance, but upstream in the context of disruptive capacity, whereby disruptive capacity presupposes a duty to ensure public safety or conduct in breach of duty. Liability as an indirect disturber of action was ruled out here, as the defendant did not discharge any perceptible substances onto the plaintiff's property. Liability as a disturber of condition is also ruled out, as it has no control over the source of the disturbance - the Laguna Palcacocha - or the climate. In the case of an effect of natural forces or an "interposition" of natural processes - as here - a disturbance can only be considered in the case of an omission in breach of duty, which, however, does not exist.

The defendant argues that, as the parent company of the RWE Group, it does not itself operate any power plants, that German law does not provide for general liability by virtue of group affiliation and that it is not obliged to instruct its subsidiaries to restrict or cease power plant operations due to the principle of separation under company law. Even if a domination agreement exists, the controlling company is not directly liable to the creditors of the controlled company; its therefore lacks Passivlegitimation. The CO2 emissions the

Moreover, the power plants of the RWE Group were within the scope of proper management, they were lawful, approved and carried out on the basis of a statutory supply mandate in the public interest. From this perspective, there was also no breach of duty.

The defendant points out that the plaintiff or his legal predecessors had settled below the lagoon with knowledge or negligent ignorance of an existing source of pollution and had built on the property without planning permission. If the alleged hazardous situation was therefore only created by the settlement below the lagoon, the plaintiff must in principle tolerate the immissions; any claims on his part are not only to be reduced due to contributory causation in accordance with § 254 BGB, but completely excluded.

The second (main) claim is also unfounded. The defendant disputes the reconstruction measures alleged by the plaintiff and the costs incurred as a result as well as their suitability for eliminating or reducing a possible flood risk as well as the findings on the statics of the plaintiff's house in Exhibit BK 34 (p. 2994 et seq. of the file) with ignorance. The measures already carried out to reinforce the house would have been subject to an official building ban. The continued existence of the plaintiff's ownership of the property is also disputed with ignorance. Any claim of the plaintiff, which in any case could not amount to 50% of the total costs of the conversion, but at most to 0.47% or 0.38% of the alleged costs of **XXXXX** would be completely eliminated by way of offsetting the benefit, because the increase in value clearly exceeded the costs incurred.

The alternative claims (claims 3 to 5) are all inadmissible. Insofar as the plaintiff formulates in his motions that the causal contribution of the defendant is to be determined by the court in accordance with Section 287 ZPO, his motions lack sufficient certainty. § Section 287 ZPO is only applicable with regard to the causality fulfilling liability. Contrary to the plaintiff's view, even in cases of partial causality, the respective share of liability must be determined in accordance with the standard of § 286 ZPO.

The application under 4., which aims to reduce the lake volume by 81,780 m<sup>3</sup> of water, lacks the need for legal protection; the plaintiff's request is pointless. In addition, an order to reduce the lake volume by 81,780 m<sup>3</sup> on a pro rata basis presupposes that the lagoon was still in use at the time relevant to the decision.

had the volume of 17.4 million m<sup>3</sup> claimed by the plaintiff. This is disputed; the volume has been considerably reduced in the meantime. Moreover, an incorrect reference value is also used as a basis. Any share of causation on the part of the defendant could only relate to the lake volume that had been added to the natural lake volume due to the anthropogenic acceleration of glacier melt as a result of climate change. However, this could not be determined due to a lack of time series and data on historical glacier and lake development.

With regard to claims 4 and 5, the defendant also argues in substantive legal terms that a permanent proportional reduction of the total sea volume is impossible (Section 275 BGB). The natural fluctuations in lake volume per day are in some cases considerably greater than the entire alleged historical contribution of the defendant's group.

For further details of the parties' submissions, reference is made to the respective written submissions and annexes.

The Senate took evidence by obtaining a written expert opinion and a written supplementary expert opinion from the experts Prof. Dr.-Ing. Katzenbach (TU Darmstadt) and Prof. Dr.-Ing. Reference is made to the expert opinions dated 31.07.2023 (hereinafter referred to as SVG I) and 20.12.2024 (SVG II). In preparation for the expert opinions, on-site meetings were held in Huaraz on May 24, 25 and 26, 2022 at and on the plaintiff's property and at Laguna Palcacocha, in which the parties and, by mutual agreement, (only) the chairperson and the rapporteur of the Senate participated. Reference is made to the minutes of 02.06.2022/18.11.2022 (p. 3127 et seq. of the file). Furthermore, an appointment was held with the local authorities on 27.05.2022 at the instigation of the experts for the purpose of gathering information, which was attended by both the chairman and the rapporteur as well as the parties and their representatives.

The experts explained their expert opinions orally at the hearing on March 17/19, 2025; questions and submissions were permitted by the parties' respective private experts.

The Senate has under30.11.2017,01.02.2018,01.03.2018,10.12.2020,01.07.2021, 03.03.2022, 25.07.2022 and 16.04.2024 legal notices issued.

#### В.

The plaintiff's admissible appeal is unsuccessful on the merits.

The Regional Court was right to dismiss the action. Although the action is admissible with its last main claims and conclusive on the merits, it is unfounded. Claims 3. and 5. are already inadmissible, the auxiliary claim 4. is unfounded. In view of the unfounded nature of claims 1 and 4, the declaration sought by the plaintiff that the original claims were admissible and well-founded when the event giving rise to the claim occurred is also unfounded.

# <u>I. First main application: Application for determination of the obligation to reimburse</u> <u>costs</u>

The plaintiff's (last filed) first main claim, to establish the defendant's obligation to reimburse the costs in proportion to its 0.38% share of the impairment, is admissible, but - based on the findings currently established by the court experts - unfounded.

For the sake of clarity, the (rough) structure of the Senate's examination of the first application is presented here:

- 1. Admissibility
  - a) International jurisdiction
  - b) Clarification of the application
  - c) Current legal relationship
  - d) Interest in a declaratory judgment

- e) Abuse of rights
- f) Certainty of the application for a declaratory judgment

## 2. Justification

- a) Applicability of German law
- *b)* §§ 1004 para. 1 sentence 2 in conjunction with §§ 677 ff. §§ Sections 677 et seq. and 812 BGB as a suitable basis for a claim
- c) Conclusiveness check
  - aa) (Joint) ownership
  - *bb) Impairment of property within the meaning of Section 1004 (1) sentence 2* BGB
  - cc) Defendant as interferer (of action)
  - dd) Illegality of the impairment of property
  - ee) Contributory responsibility/co-causation of the plaintiff, § 254 BGB analogous
  - ff) Statute of limitations
- d) Impending impairment
  - aa) Risk of first offense
  - bb) Relevant period of occurrence of the violation of legal interests
  - cc) Evaluation of evidence
- 1.

The application for a declaratory judgment is <u>admissible</u>.

a)

The <u>international jurisdiction of the Senate</u>, which, contrary to the wording of Section 513 (2) ZPO, must also be examined in the appeal instance, is established pursuant to Art. 4 (1), 63 (1) Brussels I Regulation (Regulation No. 1215/2012 of the European Parliament and of the Council of January 12, 2012).

In addition, pursuant to Section 39 S. 1 ZPO due to the defendant's unrepentant negotiation in the oral hearing at first instance on November 24, 2016 (p. 406 f. of the file; see BGH, judgment of December 3, 1992 - IX ZR 229/91, juris para. 11; BGH, judgment of January 30, 1969 - X ZR 19/66, juris para. 35 f. - *Case law is always cited in the following according to juris, unless otherwise stated*).

#### b)

Insofar as the plaintiff reformulated his main claim in the appeal instance, this merely represents a <u>clarification</u> and not an amendment to the claim within the meaning of Sections 263, 533 ZPO or a "concealed partial withdrawal" (Section 269 ZPO).

#### C)

The <u>current legal relationship</u> between the parties required in the context of a (positive) declaratory action within the meaning of Section 256 (1) ZPO exists. Even if the plaintiff bases his claim on a serious threat of impairment for the first time and on defensive measures that have already been taken only in part, but are mainly intended, and the costs that may have to be reimbursed in accordance with Sections 677 et seq. and 812 BGB, the legal relationship between the parties already exists in the form of the (alleged) concrete threat of impairment of absolute legal interests.

#### aa)

A current legal relationship is not only the already existing concrete legally regulated relationship of one person to another or to a third party, which is derived from the facts of life presented.

object. This also includes those relationships that arise in the future as a legal consequence of an existing legal relationship, so that conditional or aged relationships can also form the basis of an action for declaratory judgment. A declarable legal relationship therefore also exists if a liability has not yet arisen, but the basis for its subsequent occurrence has been established in such a way that the creation of the liability only depends on the occurrence of further circumstances or the passage of time (BGH, judgment of 19.11.2014 - VIII ZR 79/14, para. 26; BeckOK ZPO/Bacher, 55th ed, Status 01.12.2024, ZPO Section 256, margin no. 3 et seq., 6). On the other hand, it is not permissible to determine the legal consequences of a legal relationship that does not yet exist, but can only arise in the future under conditions whose occurrence is still open (BGH, judgment of 19.01.2021 - VI ZR 194/18, para. 30; BeckOK ZPO/Bacher, loc. cit.).

#### bb)

According to this provision, a present, ascertainable legal relationship exists in the case in dispute, since the basis for any subsequent liability of the defendant has already been established and its creation depends only on the occurrence of further circumstances.

The plaintiff alleges the existence of a concrete threat to an absolute legal interest, namely his property. According to his argumentation, the impairment of property is ultimately triggered by the past, present and ongoing release of CO2 <sub>emissions</sub> by the defendant's group. The standard that determines the legal relationship between the parties is therefore Section 1004 (1) sentence 2 BGB. Even the serious threat of a first-time encroachment impairs the protected right, legal asset or interest and triggers the claim under Section 1004 (1) sentence 2 BGB (BGH, judgment of June 19, 1951 - I ZR 77/50, GRUR 1952, 36; OLG Düsseldorf, judgment of December 5, 1990 - 9 U 101/90, para. 25; Erman/Ebbing, BGB, 17th edition 2023, Section 1004, para. 76). With his claim, the plaintiff aims to prevent the impending impairment of property by taking appropriate measures or to mitigate its consequences. However, it is currently not possible to predict whether (further) measures will actually be taken in the future to prevent the impairment and what costs the plaintiff may incur as a result. The levying of a

Accordingly, the plaintiff cannot bring an action for payment, as he is not entitled to an advance payment before the impairment has been remedied (see BGH, judgment of 23.03.2023 - V ZR 67/22, para. 11). The defendant's obligation to reimburse the costs of corresponding protective measures therefore depends on the occurrence of further circumstances. Nevertheless, the legal relationship existing between the parties pursuant to Section 1004 (1) sentence 2 BGB constitutes the already existing substrate of the legal relationship that the plaintiff wishes to have established. In this respect, it is only necessary that the basis for the emergence of a claim is established in such a way that a legal relationship already exists, but not that all circumstances on which the emergence of the specific claim depends have already occurred (BGH, judgment of 16.05.1962 - IV ZR 215/61, NJW 1962, 1723; BGH, judgment of 03.12.1951 - III ZR 119/51, para. 4; BGH, judgment of 05.06.1990 - VI ZR 359/89, para. 6, 15).

#### cc)

Whether an impairment of the plaintiff's property is actually imminent - this is denied by the defendant - does not require further discussion in the context of the admissibility review.

The alleged impairment of property is a so-called qualified procedural prerequisite or doubly relevant fact, i.e. a fact that is necessarily relevant for both the admissibility and the merits of an action. For reasons of procedural economy, evidence of such a fact is not taken as part of the admissibility review. The doubly relevant fact is assumed to be true as part of this examination and is only established when examining the merits. In this respect, the unilateral, conclusive assertion of all necessary facts by the plaintiff is sufficient to establish admissibility. The principle of the otherwise absolute priority of the admissibility test is exceptionally broken here (BGH, judgment of 25.03.2015 - VIII ZR 125/14, para. 25; BGH, judgment of 25.11.1993 - IX ZR 32/93, para. 16 f.; Anders/Gehle/Anders, 83rd ed. 2025, ZPO, Vor § 253, para. 18).

The plaintiff's submission is conclusive; reference is made in this respect to the statements under no. 2.

d)

The plaintiff has a <u>legal interest in the immediate determination</u>, Section 256 (1) ZPO, since his right is threatened by a current danger or uncertainty and the judgment sought is suitable to eliminate this danger (see BGH, judgment of June 9, 1983 - III ZR 74/82, para. 13 f.).

In the case of an action for a declaratory judgment, a threat in this sense usually already exists if the defendant seriously contests the plaintiff's right (BGH, judgment of 25 July 2017 - II ZR 235/15, para. 16). This is the case here: The defendant denies its obligation to contribute to the (future) costs of protective measures at Laguna Palcacocha or on the plaintiff's residential property because it does not see itself as a disturber. On the other hand, the plaintiff also has a legal interest in clarifying the question of liability as soon as possible because there is a risk of uncertainty in the form of a statute of limitations. The risk of limitation indicates an interest in a declaratory judgment (BGH, judgment of 21.07.2005 - IX ZR 49/02, para. 7; Musielak/Voit/Foerste, ZPO, 21st ed. 2024, § 256, para. 10, 33). In this case, the plaintiff's later claims for reimbursement could become time-barred, as the limitation period begins when the requirements for a claim under Section 1004 (1) sentence 2 BGB are met. A declaratory judgment would give the plaintiff legal certainty and prevent any claims from becoming time-barred.

An interest in a declaratory judgment is also not exceptionally lacking because the occurrence of future damages appears impossible. In the case of the infringement of absolute legal interests feared here by the plaintiff, an interest in a declaratory judgment is only to be denied if, from the point of view of the injured party, there is no reason to at least expect the occurrence of (further) damage (BGH, judgment of 16.01.2001 - VI ZR 381/99, para. 7; BGH, judgment of 09.01.2007 - VI ZR 133/06, para. 5; BGH, judgment of 23.04.1991 - X ZR

77/89, para. 7 f.). In the case in dispute, however, it appears possible that further costs for safety measures could arise, which the plaintiff could demand reimbursement from the defendant in the event of liability. This applies on the one hand to measures taken by third parties at the lagoon, but also to safety measures taken by the plaintiff itself. The plaintiff does not consider his own measures on the lagoon to be possible due to the considerable costs involved. However, he has already protected his property in the past by

The applicant has reinforced the measures described in detail and proven in order to protect himself against the alleged concrete threat of impairment of his property. He has submitted further possible and intended protective measures for his property.

In view of the special circumstances of the present case, the Senate does not believe that the decision of the Federal Court of Justice of 23.03.2023 - V ZR 67/22 - prevents it from affirming the interest in a declaratory judgment. In the aforementioned decision, the Federal Court of Justice states that an application for a determination of the defendant's obligation to reimburse costs after self-performance has been carried out is inadmissible due to the priority of the action for performance or the lack of an interest in a declaratory judgment pursuant to Section 256 (1) ZPO. The plaintiff could either bring an action for reimbursement of costs after self-performance or - if he wishes to avoid the risk associated with pre-financing the costs - first sue for removal and then enforce the judgment obtained by way of substitute performance (BGH, loc. cit., para. 39). The Senate does not fail to recognize that this decision - which was only issued after the order to take evidence was issued in the present proceedings - could also speak against the admissibility of the declaratory action in the present case. However, the facts to be assessed here have special features which, in the opinion of the Senate, make it appear justified to affirm an interest in a declaratory judgment in the specific case. Whereas in the BGH decision cited above, a disturbance caused solely by the defendants there - the owners of the neighboring property - was at issue, in the case in dispute there is an indeterminate number of disturbing parties; against this background, the defendant can and should only be held proportionally liable. The plaintiff would be left without rights if, in this situation, he were to either sue the defendant for partial removal and then enforce the judgment obtained by way of substitute performance or take the necessary measures himself and then bring an action for reimbursement of costs against the defendant. The latter would have to be done within the limitation period. Due to his limited means, however, this is probably not possible for the plaintiff. Neither of the two paths outlined therefore enables him to safeguard his interest in integrity.

The plaintiff's alleged statement to a newspaper that he would pass on the payment of the sum obtained to the provincial government in Ancash in the event of winning the case here also makes his interest in a declaratory judgment not lapse. This is because if the plaintiff succeeds with his claim for a declaratory judgment and later - after actually implementing suitable protective measures (wherever and by whomever) and charging the plaintiff with the (proportionate) costs - also with the subsequent claim for payment, he is free to deal with the money obtained as he wishes.

Ultimately, however, it is also irrelevant whether there is an interest in a declaratory judgment. The Senate is not prevented from rejecting the plaintiff's appeal as unfounded irrespective of the existence of an interest in a declaratory judgment. According to the case law of the Federal Court of Justice, the legal interest required by Section 256 (1) ZPO is not a procedural requirement, without the existence of which the court is denied a substantive examination and a substantive judgment at all. As a result, the action for declaratory judgment can be dismissed as unfounded even if there is no interest in a declaratory judgment are met (BGH, judgment of 27.10.2009 - XI ZR 225/08, para. 12, with further references).

e)

Even from the perspective of a possible abuse of <u>rights</u>, the claim does not lack the need for legal protection. The final extent of the costs of possible (protective) measures is not yet foreseeable; therefore - contrary to the opinion of the defendant - even taking into account the asserted liability share, a legally abusive minor economic value is not recognizable.

#### f)

Finally, the application for a declaratory judgment is also <u>sufficiently specific</u> within the meaning of Section 253 (2) no. 2 ZPO.

The principle of certainty requires that the plaintiff describes the legal relationship whose existence or non-existence is to be determined in his application so precisely that there can be no uncertainty about its identity and thus about the scope of the legal force of the requested declaratory claim (BGH, judgment of October 4, 2000 - VIII ZR 289/99, para. 35).

These requirements have been met here. In particular, by using the term "suitable" protective measures, the plaintiff has made it clear that it is not a question of the obligation to reimburse the costs of any (construction) measures at the lagoon and/or on his property, but only those that are also objectively suitable to protect his property from a tidal wave from Laguna Palcacocha. Whether this suitability actually exists can only be conclusively determined after the specific measure has been implemented.

2.

However, the application for a declaratory judgment is unfounded.

The Senate does see Section 1004 (1) sentence 2 in conjunction with Sections 677 et seq. §§ Sections 677 et seq. and Section 812 of the German Civil Code (BGB) is a suitable basis for the claim for a declaratory judgment asserted by the plaintiff. The requirements of the claim have also been conclusively presented. However, the Senate is convinced that the plaintiff was unable to prove that his property was threatened by a concrete danger within the meaning of Section 1004 (1) sentence 2 BGB at the time of the Senate's decision.

a)

The dispute is to be assessed in accordance with German law.

aa)

Both parties invoked German legal provisions both in the first and second instance and argued almost exclusively on the basis of this legal system. According to the established case law of the Federal Court of Justice, this circumstance alone justifies the assumption that the parties in the legal dispute have in any case tacitly agreed on the validity of German law (see BGH, judgment of December 9, 1998 - IV ZR 306/97, para. 11; BGH, judgment of January 18, 1988 - II ZR 72/87, para. 10; BGH, judgment of September 13, 2004 - II ZR 276/02, para.

18; BAG, judgment of May 29, 2024 - 2 AZR 313/22, para. 5).

bb)

In addition, the legal representatives of both parties unanimously stated on the record at the hearing before the Senate on 13.11.2017 that German law should be applied in the present case. There is therefore an express choice of law that is binding on the Senate pursuant to Art. 1 para. 1 sentence 1, Art. 2 para. 1, 14 para. 1 Rome II Regulation (Regulation EC No. 864/2007 of the European Parliament and of the Council on the law applicable to non-contractual obligations).

#### cc)

The fact that Peru is not a member state of the European Union does not preclude the application of the Rome II Regulation in the present case. This follows from the legal concept of Art. 3 Rome II Regulation. Accordingly, the law designated under this Regulation is to be applied irrespective of whether it is the law of a Member State or that of a third country. The provision adopts the principle of universal application that has now become standard in all EU IPR instruments. Ultimately, the aim is to create uniform conflict-of-law rules without differentiation. The Regulation therefore also applies in the case of a foreign connection to a non-member state in its material scope of application as the conflict of laws of the member state - here: Germany - applies (BeckOGK/Schmidt, as of 01.03.2025, Rome II Regulation, Art. 3, para. 5 et seq.; Münchener Kommentar/Junker, BGB, 9th ed. 2025, Rome II Regulation, Art. 3, para. 1 et seq; jurisPK-BGB/Lund, 10th ed. 2023, Rome II Regulation, Art. 3, para. 1 f.).

#### dd)

The principle of "*lex rei sitae*" also does not preclude the application of Art. 14 para. 1 of the Rome II Regulation (free choice of law).

The claim asserted by the plaintiff is a non-contractual claim within the meaning of Art. 2 or 7 of the Rome II Regulation, to which the law of location - i.e. the law of the place where an asset is located - does not apply. For legal claims resulting from an (alleged) violation of (co-)ownership and which - as in this case - are based on the law of the place where the property is located.

restoration of the status quo or the elimination of a current disturbance of ownership, the legal situation in rem can only be clarified incidentally. It is true that, according to German legal understanding, claims under Section 1004 BGB as well as vindication under Section 985 BGB are assigned to claims in rem under substantive law. However, this is not relevant in the context of the European regulation, which is to be interpreted autonomously, especially since most other legal systems do not classify such claims in rem, but in tort, regardless of whether the liability requires fault (see BGH, judgment of July 18, 2008 - V ZR 11/08, para. 11; BGH, judgment of October 24, 2005 - II ZR 329/03, para. 6).

For a non-contractual claim within the meaning of Art. 2 and Art. 7 of the Rome II Regulation, which is the issue here, Art. 7 of the Rome II Regulation refers to Art. 4(1) of the Rome II Regulation. According to this provision, the law of the country in which the event occurs is generally applicable, unless the injured party decides to base his claim on the law of the country in which the event giving rise to the damage - in this case the emission - took place. In the present case, the plaintiff has made this decision (in agreement with the defendant) in favor of German law (see above).

However, a distinction must be made because, according to the plaintiff's submission, the defendant's conduct (issuing activity) has been ongoing since 1965 and the Rome II Regulation has only been applicable to non-contractual obligations since January 11, 2009 (see Art. 31 Rome II Regulation).

German law applies for the period from 01.06.1999 to 11.01.2009, as the place of performance rule applies in accordance with Art. 44 and 40 para. 1 sentence 1 EGBGB (old version), which also applies in the present case. Furthermore, the parties have agreed to the application of German law in accordance with Art. 42 EGBGB old version (see above).

German law must also be applied for the period prior to June 1999, as the place of action rule, on which Art. 40 para. 1 sentence 1 EGBGB old version is ultimately based, was recognized under customary law for this period. According to the principle of favorability, which was used by case law in the event of competition between several types of tort arising from the divergence between the place of action and the place of success, was the for the injured party materially most favorable tort law

to be applied. The prevailing opinion and part of the case law affirmed the injured party's right to choose (cf. on the whole: Münchener Kommentar/Junker, 4th ed. 2006, EGBGB Art. 40, para. 16, 183 f.). The parties were also able to choose the tort statute jointly even before June 1999 (Münchener Kommentar/Junker, loc. cit., Art. 42, para. 7); they did so here.

# b)

Contrary to the legal opinion of the defendant, <u>Sections 1004 (1) sentence 2, 1011</u> <u>i.V.m. §§ Sections 677 et seq. and 812 BGB</u> constitute <u>a suitable basis for</u> the plaintiff's claim. In the event of an imminent impairment, the disturber may also be required to take positive action to prevent the impairment from occurring. If this action is seriously and definitively refused, the obligation of the disturber to bear the costs, as sought by the plaintiff here, may be determined even before actual expenses are incurred.

## aa)

Pursuant to Section 1004 (1) BGB, the owner can demand that the disturber remove the impairment if the property is impaired in any way other than by deprivation or withholding of possession. If further impairments are to be expected, the owner can sue for injunctive relief. The claim for injunctive relief under Section 1004 (1) sentence 2 BGB is recognized beyond the wording of the law even if - as claimed by the plaintiff - there is a risk of a first-time impairment (so-called preventive defence claim, see BGH, judgment of 17.09.2004 - V ZR 230/03, para. 11).

#### bb)

The asserted claim does not fail because the defendant is to be obliged to do something positive.

The injunctive relief does not merely oblige to do nothing, but to conduct, with the is guaranteed, that the imminent

impairment of property is not realized (see, for example, BGH, judgment of 12.12.2003 - V ZR 98/03, para. 14 f.; BGH, judgment of 09.05.2019 - III ZR 388/17,

para. 13; OLG Düsseldorf, judgment of December 5, 1990 - 9 U 101/90, para. 22 et seq.; Grüneberg/Herrler, BGB, 84th ed. 2025, § 1004, para. 33). The disturber therefore does not owe the restoration of the status quo ante as in tort law, but the actus contrarius of his disruptive activity; he must reverse its success or at least render it ineffective for the future (see on the whole: Staudinger/Thole, BGB, Neubearbeitung 2023, § 1004, para. 1 f.; Münchener Kommentar/Raff, BGB, 9th ed.

2023, § 1004, para. 1 ff., 222 ff.).

According to the plaintiff's submission, the impending impairment can only be prevented by active intervention.

#### cc)

The application of Section 1004 (1) sentence 2 BGB is also not precluded by the fact that, in the case in dispute, safety measures are at issue both on the glacial lake itself and on the plaintiff's property.

Pursuant to Section 1004 (1) sentence 2 BGB, measures to avert danger are not exclusively owed, which eliminate the source of the disturbance - here: the emissions of the defendant - as such. This is not possible in any case with regard to the emissions already released. Nor are the measures owed limited to the object from which the specific danger could ultimately emanate. If, for factual or legal reasons, it is not possible to eliminate the impairment of property or its source immediately or in full, the owner can demand from the disturber that the impairment is initially reduced to the lowest possible level or that provisional but immediately effective safety measures are taken (BGH, judgment of March 12, 1964 - II ZR 243/62, para. 11; BGH, judgment of March 22, 1966 - V ZR 126/63, para.

11 ff., 14).

In the present case, it is therefore not imperative that measures be taken directly at the lagoon in order to prevent a tidal wave or glacial lake outburst flood (GLOF). Rather, safety-enhancing measures on the plaintiff's property could also be considered.

#### dd)

Contrary to the legal opinion of the defendant, a claim for reimbursement of expenses is also conceivable in connection with a preventive defense claim under the aspect of management without mandate or unjust enrichment.

#### (1)

The owner, who has removed an (imminent) impairment of his property himself, can demand compensation from the disturber, who is obliged to do so under Section 1004 para. 1 of the German Civil Code (BGB) for the expenses required to remove the disturbance because he has (also) procured a transaction of the disturber (Sections 683, 684 BGB) or - if the conditions of management without mandate cannot be established - because the disturber has been released from his obligation to remove the disturbance by saving his own expenses and has therefore been unjustly enriched (Sections 812 (1) sentence 1 alt. 2, 818 (2) BGB). This corresponds to the established case law of the Federal Court of Justice (BGH, judgment of 28.11.2003 - V ZR 99/03, para. 14; BGH, judgment of 04.02.2005 - V ZR 142/04, para. 4; BGH, judgment of 13.01.2012 - V ZR 136/11, para. 6) and the majority of the literature (see for example Erman/Ebbing, loc. cit., § 1004, para. 69; BeckOK BGB/Fritzsche, 73rd ed. 01.02.2025, § 1004, para. 84 with further references; Grüneberg/Herrler, loc. cit., § 1004, para. 30; Schirmer, Nachhaltiges Privatrecht, 2023, § 6 Klimahaftung, p. 199).

### (2)

Not only the creditor of a claim for removal within the meaning of § 1004 para. 1 sentence 1 BGB can demand reimbursement of expenses from the disturber under the aforementioned conditions, but also the creditor of a preventive defense claim within the meaning of § 1004 para. 1 sentence 1 BGB.

§ Section 1004 (1) sentence 2 BGB, which must be fulfilled by (active) action on the part of the disturber. Since case law permits substitute performance in the case of claims for removal and at the same time - as stated - also recognizes the legal consequence of a positive action in the case of a claim for injunctive relief, it would be difficult in view of the often difficult distinction between a claim for removal and a claim for injunctive relief in individual cases It would make no sense to impose the costs of substitute performance on the disturber in one case and not in the other. Depending on the situation, a claim for removal and a claim for injunctive relief may have to be fulfilled in the same way (see BeckOGK/Spohnheimer, Version 01.02.2025, BGB, Section 1004, para. 177). Enforcement law problems, such as those constructed by the defendant with reference to Ahrens (VersR 2019, 645, 647 f.), do not arise; enforcement is based on the corresponding title.

#### ee)

The asserted claim is also not precluded by the fact that the defendant would not be granted a right of choice with regard to the removal measures to be taken in the event of its conviction.

In principle, it is the disturber who decides which measures he takes to eliminate or refrain from the impairment (BGH, judgment of 22.10.1976 - V ZR 36/75, para. 11; Grüneberg/Herrler, loc. cit., § 1004, para. 51). However, this does not apply without exception. If, for example, the owner demands compensation for the expenses necessary to remedy the disturbance after the disturbance has been remedied by the disturber, who is obliged to do so under Section 1004 (1) BGB, or if he asserts a claim under the law of enrichment, the disturber has no influence on which specific measures are taken to avert the danger. Rather, the choice of a suitable and proportionate measure is then the responsibility of the owner or creditor.

The same must apply if the disruptive party seriously and definitively refuses to remove the impairment and at the same time makes it clear that it does not want to and will not exercise its right of choice. This is the case here. The defendant has repeatedly expressed in writing and also in the oral hearing before the Senate that it does not consider itself obliged to defend against the alleged impending impairment. In such a situation, the principle arising from Section 267 BGB, which applies to all obligations, comes into play, according to which, if the debtor does not have to perform in person, a third party can perform for him. This principle also applies here, as the obligation to remove the (impending) impairment of property is not a personal obligation of the disturber (arg. ex Section 910 (1) BGB; see BGH, judgment of 28.11. 2003 - V ZR 99/03, marginal no. 15). The of a law to choice suitable

In such a case, the third party providing the service is therefore entitled to the fault rectification measure.

# ff)

Finally, the fact that he lives in Peru does not prevent the plaintiff from asserting a claim against the defendant under Section 1004 (1) sentence 2 BGB. The Federal Court of Justice does not require a current legal relationship of the defendant to the impairment or to the source of the ongoing property disturbance (BGH, judgment of March 22, 1966 - V ZR 126, 63, para. 12 ff.; BGH, judgment of February 4, 2005 - V ZR 142/04, para. 5 f.; BGH, judgment of December 1, 1995 - V ZR 4/94,

para. 10 et seq.). The distance between the source of the disturbance and the affected property is also irrelevant; proximity is not a prerequisite - both according to the wording and the meaning and purpose of the provision. § In addition to Section 985 BGB, Section 1004 BGB is intended to protect the owner comprehensively, both with regard to movable and immovable property. However, toleration obligations may arise from the federal law on neighbors (see Münchener Kommentar/Raff, loc. cit., § 1004, para. 1 et seq.; Erman/Ebbing, loc. cit., § 1004, para. 1 et seq.).

### c)

The plaintiff has <u>conclusively demonstrated the requirements of the aforementioned</u> <u>basis for the claim</u>. According to his submission, there is an imminent impairment of his property, for which the CO2 <sub>emissions</sub> of the defendant's group are a contributory cause and which he does not have to tolerate. This claim is not precluded by the plaintiff's predominant co-responsibility pursuant to Section 254 of the German Civil Code (BGB) or the objection of the statute of limitations.

A factual submission in support of a claim is already conclusive and relevant if the party submits facts which, in conjunction with a legal proposition, are suitable and necessary to make the asserted right appear to have arisen in the person of the party. It is not necessary to provide further details if these are not relevant to the legal consequences. This applies in particular if the party has no direct knowledge of the events. The court must only be put in a position to decide on the basis of the factual submissions of the party to , whether the

the legal requirements for the existence of the asserted right are met. If these requirements are met, it is up to the court of fact to take evidence and, if necessary, to question the named witnesses or the party to be questioned for further details or to submit the issues relevant to the evidence to an expert (established case law, see, for example, BGH, decision of 28.01.2020 - VIII ZR 57/19, para. 7, with further references).

On this basis, the plaintiff's statement of claim is conclusive.

## aa)

The plaintiff has conclusively demonstrated his (co-)ownership of the property located in Huaraz, and - although undisputed at first instance - has provided evidence of this by submitting an entry in the land register (Annex K 2, p. 44 of the annex). According to § 1011 BGB, each co-owner can assert the claims arising from the property against third parties with regard to the entire property (see Grüneberg/Herrler, loc. cit., § 1011, para. 2).

In the appeal instance, the defendant now questions the continued existence of the plaintiff's ownership and justifies this with the fact that in the meantime it is no longer the plaintiff but apparently his son who occupies the property (cf. pp. 3203, 3471 of the file). However, this circumstance is not suitable to shake the Senate's conviction of the plaintiff's co-ownership of the property in dispute, let alone to refute the co-ownership proven by the plaintiff with the lis pendens of his action. This is because there is a lack of any evidence for this. Due to the evidence provided by the plaintiff of his land ownership and the general presumption of continuation of title linked to it, the defendant would have to demonstrate and prove the loss of the same (see BGH, judgment of December 19, 1994 - II ZR 4/94, para. 16). Her submission does not meet this requirement.

### bb)

The acute danger of flooding of his house property alleged by the plaintiff in the event of a tidal wave emanating from Laguna Palcacocha constitutes an (imminent) impairment of property within the meaning of Section 1004 (1) sentence 2 BGB.

Impairment within the meaning of Section 1004 (1) BGB is any interference with the legal or actual power of the owner that contradicts the content of the property (Section 903 BGB) and is not only insignificant in terms of duration and intensity (see BGH, judgment of March 1, 2013 - V ZR 14/12, para. 14; Grüneberg/Herrler, loc. cit., Section 1004, para. 6).

A first serious threat of impairment, as required for a preventive injunction claim within the meaning of Section 1004 (1) sentence 2 BGB, exists if, objectively speaking, the occurrence of damage is concrete, can be expected in the foreseeable future (as soon as possible) and with sufficient probability. The claim for injunctive relief therefore only arises at the moment in which a concrete source of danger has objectively arisen which makes the impairment possible and on the basis of which intervention is required (see BGH, judgment of September 18, 2009 - V ZR 75/08, para. 12; BGH, judgment of May 30, 2003 - V ZR 37/02, para. 14; Staudinger/Thole, loc. cit, § 1004, para. 464 f.; BeckOGK/Spohnheimer, loc. cit., § 1004, para. 271).

In the present case, the plaintiff conclusively presents such an imminent impairment of property. He claims that flooding of his property can be expected at any time and refers to an expert opinion by Emmer, Ph.D. (private lecturer in physical geography, University of Graz) dated 20 September 2016 (Annex K 37), according to which there is a flood risk emanating from Laguna Palcacocha that can currently be described as high. Depending on the strength of the tidal wave, this flood would also threaten his property. In his expert opinion (see p. 9), Emmer again refers to a study by Somos-Valenzuela et al. (2014; see Annex K 9 to the statement of claim (CD), p. 50 of the file). The expert opinions submitted to the file are to be assessed as qualified party submissions.

Since the defendant, for its part - also by way of qualified party submissions - with reference to an expert opinion commissioned by it from Professors Dr. Amann et al. (RWTH Aachen, Annex B 61) and a statement by glaciologist Prof. Dr. Funk from March 2019 (pp. 1774 et seq. of the file) that the lagoon poses a serious (flood) risk in the foreseeable future and that the plaintiff's property would also be affected by any flooding, the Senate was required to take evidence on this point.

cc)

Based on the plaintiff's submission, the defendant is the <u>tortfeasor</u>. The alleged imminent impairment of the plaintiff's property is caused by the CO2 emissions adequately causally (mit-) and is also attributable to it.

A disturber within the meaning of Section 1004 (1) BGB is, in particular, anyone who has adequately caused the actual or imminent impairment of another person's property through their actions or failure to act in breach of duty, as well as anyone through whose decisive will the property-impairing condition is maintained. Ultimately, it depends on an assessment of the individual case (on the whole: BGH, judgment of 07.07.1995 - V ZR 213/94, para. 7 et seq.; Staudinger/Thole, loc. cit., § 1004, para. 19, 254 et seq.; Münchener Kommentar/Raff, loc. cit., § 1004, para. 151 et seq.; Grüneberg/Herrler, loc. cit., § 1004, para. 15 et seq.).

Causality in the scientific sense is not decisive for determining the required causal link within the framework of Section 1004 (1) BGB, but rather legal causality.

According to the equivalence theory, every condition is causal if it cannot be eliminated without the success being eliminated ("*conditio sine qua non*" formula, see BGH, judgment of December 14, 2016 - VIII ZR 49/16, para. 17, with further references; BGH, judgment of October 19, 2016 - case no. IV ZR 521/14, para. 14). According to the theory of adequacy, this must be limited to the extent that the event must be capable of bringing about a result of the kind that has occurred in general and not only under particularly peculiar, completely improbable circumstances that must be disregarded in the normal course of events (BGH, judgment of October 19, 2016 - case no. IV ZR 521/14, para. 15, with further references). Depending on the constellation, further attribution requirements - such as special factual reasons and/or breaches of duty - are demanded by case law and literature.

In accordance with these principles, the defendant is a trespasser within the meaning of Section 1004 (1) BGB.

42

(1)

The fact that the emitting plants have not been operated by the defendant itself in recent decades, but by its subsidiaries, does not preclude the defendant's status as an interferer. The <u>emissions of the subsidiaries</u> are attributable to the defendant as if they were its own, as it manages and controls the group within the meaning of Section 18 (1) AktG.

(a)

§ Section 18 (1) AktG stipulates that a controlling company and one or more dependent companies that are combined under the uniform management of the controlling company form a group. Companies between which a control agreement exists (Section 291 AktG) or one of which is integrated into the other (Section 319 AktG) are to be regarded as being under uniform management.

While section 76 para. 1 AktG stipulates that the Management Board must manage the company under its own responsibility and thus relates to the management of the individual company, which (beyond contractual groups) remains the responsibility of the Management Board of the dependent company, section 18 para. 1 AktG is based on a different concept of management. Uniform management within the meaning of Section 18 AktG means the coordination and making of decisions at the entrepreneurial and planning (strategic) level that are of fundamental importance for the entire company (see BeckOGK/Schall, as of October 1, 2024, AktG, Section 18, para. 9 et seq.).

§ Section 291 (1) AktG stipulates that an AG or KGaA can place the management of its company under the control of another company (control agreement). § Section 308 AktG determines what management power such an agreement grants to the controlling company. Section 308 para. 1 sentence 1 AktG gives the controlling company the right t o issue instructions to the Management Board of the controlled company. An instruction in this sense is any expression of the controlling company's will that is aimed at bringing about certain behavior on the part of the management board of the controlled company. The right to issue instructions covers the entire area in which the Management Board must manage the (controlled) company in accordance with Section 76 (1) AktG. Of central importance here is that the controlling

company can also issue instructions that are detrimental to the controlled company in accordance with section 308 para. 1 sentence 2 AktG. This gives organizational expression to the purpose of the agreement and makes it clear that the controlling company can and may economically integrate the controlled company into its group of companies. The only requirement is that disadvantageous instructions serve the interests of the controlling company or the companies affiliated with it and the company, Section 308 para. 1 sentence 2 AktG (BeckOGK/Veil/Walla, as of February 1, 2025, AktG, Section 308, marginal no. 2 et seq.).

#### (b)

The defendant is the controlling company of the RWE Group; it manages the Group to which the subsidiaries operating the power plants also belong. Its right to issue instructions in accordance with Section 308 (1) AktG therefore extends to all management matters of the controlled subsidiaries; conversely, the key decisions of the subsidiaries are therefore attributable to it.

The existence of control agreements within the meaning of Section 291 (1) AktG is undisputed in the present case. In its statement of claim, the plaintiff submitted in detail and with reference to the extract from the commercial register of the Local Court of Essen HRB 14525 (Annex K 21) that the defendant is the parent company of a large number of corporations, which are particularly active in the business area of generation and procurement of energy and operate the emitting plants. The defendant manages the subsidiaries; the construction and operation of the power plants are the subject of management decisions by the defendant parent company. In this context, the plaintiff named the individual power plants and submitted information on the shareholding structures - as a result, 100% of the shares in all plants are held by the defendant (p. 21 et seq. of the file, Annexes K 25 and 26). In addition, he refers uncontradicted to formulations of the defendant in a declaration on climate protection from the year 2000, in which it assumes responsibility in this respect for the entire group (p. 18 et seq. of the file, Annex K 23).

The defendant did not counter this submission at first instance. It merely pointed out that it was "already not the operator" of the emitting systems (p. 178 of the file); however, the plaintiff did not claim this either.

In this situation, the defendant, as the controlling company, has and had the power to control corporate policy according to its will by issuing instructions. As the parent company, it not only knew, knows and approves that the subsidiaries under its control generate energy from fossil fuels and thereby emit large quantities of CO2, it also caused its subsidiaries to do so through its corporate management decisions. If it failed to issue such explicit instructions, it at least implicitly gave its consent to the key decisions of its subsidiaries. It is therefore irrelevant whether it actually issued instructions to its subsidiaries in connection with the question of whether and to what extent fossil fuels should be used to generate electricity or whether it omitted to issue such instructions.

### (C)

The defendant's submission in the appeal instance is not suitable to cast doubt on its passive legitimacy.

Even in the second instance, the defendant does not expressly deny that the construction and operation of the emitting power plants are attributable to its key entrepreneurial decisions. Nevertheless, it is now questioning its passive legitimacy by arguing that it has no obligation to instruct its subsidiaries to restrict or cease the authorized operation of the power plants. A general liability by virtue of group affiliation is alien to German law; the principle of separation applies. From this point of view, the defendant does not have passive legitimacy (pp. 747 et seq., 1011 et seq., 2484 et seq.).

Should the defendant - for the first time in the second instance - wish to claim that it did not have the (legal) possibility to instruct its subsidiaries to generate electricity without the CO2-emitting utilization of fossil fuels, its submission is not sufficiently substantiated. It is not the plaintiff's responsibility to provide detailed information on the control relationships and chains of command within the defendant's group. He is also not in a position to do so because he does not know and cannot know the internal relationships on the part of the defendant. Since the plaintiff's submissions at first instance were both substantiated and uncontradicted, that the defendant and its subsidiaries form a group within the meaning of Sec. 18 AktG, that control agreements within the meaning of Sec.

291 (1) AktG and that the defendant makes the key strategic entrepreneurial decisions - including on the fundamental manner of energy generation - pursuant to Section 308 AktG, it would have been incumbent on the defendant to counter this submission in an equally substantiated manner. However, it did not do so.

Even if the defendant's second instance submission described above were to be regarded as a substantiated denial, the submission is in any case no longer admissible. It then constitutes a new means of defense within the meaning of Section 531 (2) ZPO, with which the defendant is excluded; the exceptions of Section 531 (2) sentence 1 no. 1 - 3 ZPO do not apply. On the contrary, the submission now made could and should have been made in the first instance without further ado; the fact that this was not done is due to negligence on the part of the defendant (Section 531 (2) sentence 1 no. 3 ZPO).

Finally, her submission does not hold water in the matter either. The so-called separation principle invoked by the defendant in its defense does not stand in the way of its passive legitimacy. The group subsidiaries subject to control agreements and integrated into the organizational area of the defendant are to be regarded as a kind of vicarious agents of the parent company (see ECJ, judgment of 10.09.2009 - C-97/08 P, para. 58 et seq.; BGH, judgment of 25.04.2012 - I ZR 105/10, para.

44 f.; Schall, ZGR 2018, 479 ff., 494, with a detailed description of the current state of opinion); the parent company is therefore responsible for its conduct.

# (2)

According to the plaintiff's submission, the defendant's contribution to causation, which thus also extends to the emissions of the subsidiaries, is <u>equivalent causal</u> for the alleged imminent impairment of the property.

According to the plaintiff's assertion, the defendant's contribution to causation or emissions cannot be ignored without the impairment of his property by the threat of flooding being eliminated in its concrete form. According to his submission, *"every degree of warming*" - meaning every fraction of a degree - leads to a faster and stronger melting of the glaciers that pour water into Laguna Palcacocha.

46

(cf. p. 35 of the file). Without the defendant's emissions, the current threat to or disturbance of his property would have been legally relevant,

i.e. not insignificantly lower, the concrete threat would therefore not be the same (cf. pp. 494, 588 et seq.).

Assuming this assertion to be correct, the defendant's emissions would be equivalent causal for the alleged endangerment of the plaintiff's property in its concrete form. This is because the defendant would have set a necessary, if not sufficient, condition for the occurrence of the damage with its emissions (see on the differentiation between necessary and sufficient conditions Staudinger/Kohler, Neubearbeitung 2017, A. Einleitung zum Umwelthaftungsrecht, para. 170 et seq.; similarly: BeckOGK/Nitsch, Stand 01.12.2024, UmweltHG, § 1, para. 62 et seq.). In such a case, the success of the injury can be attributed according to the equivalence formula - and in fact under substantive law regardless of the nature of the damage-causing, often considerably extended chain with other circumstances - without requiring the application of Section 830 para. 1 sentence 2 BGB (so-called complementary causality, see Staudinger/Kohler, loc. cit, para. 172; see also BGH, judgment of 20.05.2014 - VI ZR 187/13, para. 20; BGH, judgment of 26.01.1999 - VI ZR 374/97, para. 7; BGH, judgment of 27.06.2000 - VI ZR 201/99, para. 20; OLG Düsseldorf, judgment of June 19, 1998 - 22 U 111/97, para. 10).

# (3)

According to the plaintiff's submission, the CO2 <sub>emissions</sub> of the defendant and its subsidiaries, at least insofar as they were emitted after 1965, are also <u>adequately causal</u> for the specific endangerment of his property.

#### (a)

An adequate causal link exists if a fact is generally and not only under particularly peculiar, improbable and, according to the usual course of events, disregardable circumstances capable of bringing about a result of this kind (established case law, see for example BGH, judgment of July 10, 1975 - III ZR 28/73, para. 23; BGH, judgment of October 14, 1971 - VII ZR

313/69, para. 30). The criterion of adequacy serves the purpose of excluding those causal sequences in the context of determining the causal connection,

47

which are so beyond all experience that they can no longer "reasonably" be attributed to the tortfeasor (BGH, judgment of October 17, 1955 - III ZR 84/54, para. 9).

The determination of adequacy must be based on a retrospective prognosis in which, in addition to the circumstances known to the tortfeasor, all circumstances recognizable to an optimal observer in the position of the tortfeasor at the time of the occurrence of the damaging event or the act/omission causing the damage must be taken into account. The established facts must therefore be examined, using all available human experience, to determine whether they significantly favored the occurrence of the damage, i.e. significantly increased the risk of its occurrence (cf. on the whole: BGH, judgment of 23.10.1951 - I ZR 31/51, para. 8 et seq.; BGH, judgment of 15.10.1971 - I ZR 27/70, para. 20; BGH, judgment of 07.04.2000 - V ZR 39/99, para. 10; BGH, judgment of 03.03.2016 - I ZR 110/15, para. 34; BGH, judgment of 05.07.2019

- V ZR 96/18, para. 25; Grüneberg/Grüneberg, loc. cit., before Section 249, para. 26 et seq.; Münchener Kommentar/Oetker, 9th ed. 2022, BGB, Section 249, para. 109 et seq;

BeckOGK/Brandt, Version 01.03.2022, BGB, § 249, marginal no. 238 et seq.)

It follows from the context of the above-cited BGH decisions on adequacy that the "damaging event" - to which these decisions refer - refers to the damaging act or omission, i.e. the cause set by the tortfeasor, not just the result of the damage. It is true that the point in time of the damaging act often coincides with the occurrence of the damaging event or both points in time are close to each other. However, this is not necessarily the case, as the present case shows. In this case, there are many decades between the start of the alleged harmful act - the (first) release of  $_{CO2}$  emissions - and the occurrence of the disruption - the imminent flooding of the lagoon

-. In any case, in such a case, foreseeability must not only be based on the occurrence of success, i.e. the time of the damaging event. It only makes sense to rely on the cognitive possibilities of an optimal observer if there is a considerable gap between the harmful act and the occurrence of the damage at the time the act was carried out, i.e. from the ex ante point of view of the tortfeasor. Otherwise, an adequately causal attribution would also have to be affirmed if the act of the alleged tortfeasor only turns out to be harmful 100 years later, while there were no indications of harmfulness when it was carried out

(cf. Münchener Kommentar/Oetker, loc. cit., § 249, para. 111; BeckOGK/Brand, loc. cit, § 249, para. 239).

## (b)

Based on these principles, the adequate causality of the defendant's contribution to causation must be affirmed, since an optimal observer in the role of the defendant could have recognized since the mid-1960s that a significant increase in industrial <sub>CO2</sub> emissions would lead to global warming and to the consequences alleged by the plaintiff. The defendant's contribution to causation is also significant.

### (aa)

Based on generally known facts (§ 291 ZPO), the Senate is convinced that it was already foreseeable in the mid-1960s for an optimal observer in the role of an energy producer that anthropogenic greenhouse gas emissions would lead to global warming and the associated consequences.

According to the scientific measurements and evaluations of the climate researcher Charles D. Keeling, on whose data collection - the so-called "Keeling *Curve*" - the plaintiff relies (p. 2553 f. d.A.), direct evidence for the assumption of a steadily increasing <sub>CO2</sub> concentration and the associated warming was already found in 1958. After evaluating his measurements, Keeling established that the burning of fossil fuels by mankind and the resulting release of CO2 as well as the constantly increasing concentration of <sub>CO2</sub> contribute to global warming with undesirable consequences such as the melting of the ice caps, a rise in sea level, a warming of seawater, etc. (see Roger Revelle, Wallace Broecker, C.D. Keeling, Harmon Craig et al.

J. Smagorinsky, "Atmospheric Carbon Dioxide", Appendix Y4 to the Report of the Environmental Pollution Panel, President's Science Advisory Committee, Restoring the Quality of Our Environment, The White House, November 1965, p. 111 ff./ President's Science Advisory Committee, Restoring the Quality of Our Environment, Washington D. C. 1965). The German Physical Society

spoke in the early 1970s of "unavoidable irreversible consequences on a global scale" with regard to the impact of human activity on the climate and its (negative) consequences - assuming unhindered industrialization and further population growth (Deutsche Physikalische Gesellschaft, Machen Menschen das Wetter? Press release on the 36th Physicists' Conference in Essen from September 27 to October 2, 1971, Hanau 1971).

On the basis of this scientific opinion, the defendant could have recognized that the CO2 emissions generated as a "waste product" of coal-fired power generation were and are capable of contributing to the melting of glaciers as a result of the atmospheric greenhouse gas effect, not only due to the concatenation of particularly exceptional circumstances, but also due to ordinary physical processes. This knowledge would not have required the defendant as an energy producer to have excessive scientific expertise (see also Kling, Kritische Justiz 2018, 213 ff., 219 f.; Schirmer, Nachhaltiges Privatrecht, 2023, § 6 Klimahaftung, p. 199; Kieninger, ZHR 2023, 348 ff., 3373 ff.). A lack of specific empirical knowledge does not preclude the recognizability of scientific interrelationships, nor does their supposed complexity. A manufacturing company is required to continuously monitor the progress of scientific and technological developments in the relevant field. For companies the size of the defendant, this includes following the results of scientific congresses and specialist events as well as evaluating the entire body of international specialist literature (see BGH, judgment of March 17, 1981 - VI ZR 286/78, para. 34). For an optimal observer in the role of a large energy-producing company, the causal connections were therefore already recognizable in the mid-1960s by continuously following the progress of the development of science and technology in the field of energy production through the combustion of fossil raw materials.

Notwithstanding these statements, even if - with the defendant (p. 176, 2479 of the file) an objective recognizability of the causal chain at issue here were to be assumed only from the mid-1980s or even only with the United Nations Framework Convention on Climate Change in 1992, the foreseeability of the specifically alleged causal course as a prerequisite for a claim under § 1004 para. 1 BGB would be conclusively demonstrated. Liability of the defendant could then be considered with regard to the CO2 emissions emitted from this point onwards.

## (bb)

The defendant argues unsuccessfully that an adequate causal connection is to be denied in any case because it did not significantly favor or cause the alleged concrete endangerment of the plaintiff's property through its emissions (cf. p. 2479 of the file). The defendant's contribution to causation cannot be denied to be significant, particularly when viewed from a comparative perspective.

The question of adequacy between condition and outcome cannot be answered purely logically and abstractly according to the numerical ratio of the frequency of occurrence of such an outcome, but rather those conditions must be eliminated from the multitude of conditions that can no longer be regarded as circumstances giving rise to liability on a reasonable assessment of the facts (BGH, judgment of 17.10.1955 - III ZR 84/54, para. 9, with further references). With this proviso, the Federal Court of Justice has affirmed an adequate causal link between the vaccination of a person and their death despite an extremely low probability of not even 0.01% in this respect (see BGH, loc. cit.; Grüneberg/Grüneberg, loc. cit., Vorb v § 249, para. 27). In the case of multi-causal liability scenarios, a comparative consideration must always be made. It is not the mere amount of the causal contribution as such - e.g. 5 % or 10 % - that is the yardstick for materiality, but the amount in relation to other causal contributions (see Schirmer, Nachhaltiges Privatrecht, 2023, § 6 Klimahaftung, p. 197; Kieninger, ZHR 2023, 348 ff., 368 f.). By comparing different causal contributions, it is therefore necessary to filter out which causal contribution has significantly increased the risk, i.e. which is more important than others and which is not (see BGH, judgment of 19.11.1971 - V ZR 100/69, para. 37; OLG Hamm, judgment of 07.12.2001 - 9 U 127/00, para. 15).

Based on these principles, it cannot be assumed in the case in dispute that the risk of damage occurring is only insignificantly increased. According to the plaintiff's submission, the vast majority of global warming, namely 95%, is attributable to anthropogenic influences; the defendant is said to be involved in this with a share of approx. 0.38% of all industrial  $_{CO2}$  emissions. The share of industrial CO2

emissions of all CO2 <sub>emissions</sub> worldwide is at least 60 % according to generally accessible sources. The "Heede Study" (Exhibit K24), to which the plaintiff refers (p. 313 of the file), even assumes around 63% (see also Schirmer, Nachhaltiges Privatrecht, 2023, § 6 Klimahaftung, p. 129, also with reference to the climate scientist Richard Heede). If the latter is taken as a basis, according to the plaintiff's assertion, the defendant's share of all CO2 emissions worldwide is just under 0.24%.

On a comparative basis, neither the defendant's (alleged) share of 0.38% of industrial CO2 emissions nor its share of just under 0.24% of all CO2 emissions worldwide appear low. According to the plaintiff's presentation, all causal shares of the world's largest emitters are each less than 3.6% of total emissions. In the list of the world's 81 largest CO2 emitters (Table 12 of the "Heede Study", Annex K 24 to the statement of claim (CD), p. 50 of the file), to which the plaintiff refers, the defendant ranks 23rd. From this point of view, a share of 0.38% of all industrial CO2 emissions worldwide is not a circumstance that is only suitable for bringing about the result - global warming and its alleged further consequences - under particularly peculiar, quite improbable circumstances that are to be disregarded according to the regular course of events. The defendant's share amounts to a good tenth of the causal share of the world's largest single emitter.

Even taking into account the high absolute figures of the defendant's annual  $_{CO2}$  emissions, it is not possible to speak of a merely insignificant increase in the risk in question (see also Kling, Kritische Justiz 2018, 213 ff., 219 f.; Schirmer, Nachhaltiges Privatrecht, 2023, § 6 Klimahaftung, p. 197: According to this, the contribution to global warming attributable to RWE should correspond to the level of entire industrialized countries such as Spain or Sweden). According to the defendant's annual report, almost 166 million tons of  $_{CO2}$  were emitted in 2013, in 2014 it was still more than 156 million tons (cf. RWE 2014 Annual Report, p. 114, Annex K 25 to the statement of claim (CD), p. 50 of the file). The defendant describes itself as *"Europe's largest single emitter of CO2"* (cf. RWE Corporate Website, Annex K 22 to the statement of claim (CD), p. 50).

According to all of the above, the materiality of the defendant's contribution to causation must be affirmed if the calculation period - relevant in the context of adequacy - begins with the year 1965 in accordance with the "Heede Study" referred to by the plaintiff. Whether this would also be the case if the defendant's CO2 emissions were only to be taken into account from the mid-1980s or from 1992 onwards can ultimately be left open.

# (4)

In the case in dispute, no <u>further attribution criteria</u> are required - apart from equivalent and adequate causality - in order to impose responsibility for the event on the defendant. Moreover, there are also factual reasons that justify its qualification as a disruptive party.

However, in order not to extend liability under Section 1004 BGB indefinitely, responsibility for the event can only be imposed on both an indirect disturber and a status disturber if there are corresponding factual reasons or further attribution criteria (cf. on the whole: BGH, judgment of 05.07.2019 - V ZR 96/18, para. 25; on the indirect disturber: BGH, judgment of 27.01.2006 - V ZR 26/05, para. 5; BGH, judgment of 14.11.2014 - V ZR 118/13, para. 15;

on the status disruptor: BGH, judgment of 14.11.2014 - V ZR 118/13, para. 14; BGH, judgment of 09.02.2018 - V ZR 311/16, para. 7; BGH, judgment of 20.09.2019 - V ZR 218/18, para. 8).

However, these constellations do not apply here, as the defendant is the direct tortfeasor.

# (a)

The defendant is already not a disturber of the state, since the land on which the Laguna Palcacocha and the adjacent glaciers are located is indisputably not its property. The plaintiff has not provided any detailed information on the ownership and possession of the land on which the emitting facilities of the defendant and its subsidiaries are located; rather, he attributes the impairment he alleges to the actions of the defendant or its subsidiaries.

Nor is the defendant only an indirect tortfeasor.

(b)

In principle, the party who causes the impairment through the actions of third parties in an adequate manner through their own willful action is the indirect party (BGH, judgment of February 9, 2018 - V ZR 311/16, para. 7 et seq., 12; BGH, judgment of December 18, 2015 - V ZR 55/15, para. 12; Münchener Kommentar/Raff, loc. cit., Section 1004, para. 161).

According to the plaintiff's submission, however, the imminent impairment was directly caused by the defendant, both with regard to the acting legal entity and with regard to the structure of the causal chain triggered by it.

Even if the defendant, as the parent company, does not operate the CO2-emitting power plants itself, the actions of its subsidiaries are to be attributed to it as if they were its own actions. As already explained, the defendant and its subsidiaries form a group within the meaning of Section 18 AktG and there are control agreements within the meaning of Section 291 (1) AktG. The defendant makes the strategic business decisions within the meaning of § 308 para. 1 AktG and thus also the decision as to how its subsidiaries produce energy. In this respect, the group subsidiaries have no or only a very limited scope for decision-making vis-à-vis the defendant as the parent and controlling company, which is why they are to be regarded as assistants of the parent company in the context of energy production, dependent on instructions (see ECJ, judgment of 10.09.2009 - C-97/08 P, para. 58 et seq.; BGH, judgment of 25.04.2012 - I ZR 105/10, para. 44 et seq.).

With regard to the physical causal chain described by the plaintiff, there is also a direct and not merely indirect disturbance of the defendant, since the processes set in motion by its actions are almost linear and follow scientific laws.

The causal chain alleged by the plaintiff is as follows: The CO2 emissions released by the defendant's power plants rise into the atmosphere and, due to physical and chemical laws, lead to the formation of greenhouse gases in the entire atmosphere.

54

Earth's atmosphere leads to a higher density of greenhouse gases. The compression of the greenhouse gas molecules results in a reduction in global heat radiation and an increase in global temperature. As a result of the resulting - also local - rise in average temperatures, the risk of rock and ice break-offs increases and the melting of the Palcaraju glacier accelerates; the water volume of Laguna Palcacocha increases. The increased water level of the lagoon, possibly in combination with an ice and rockfall event, increases the risk that the water or the surge wave generated by a fall event can no longer be contained by the valley-side barrier. The glacial lake erupts in the form of an overflow of this barrier or as a result of the breach of the ground moraine wall and/or the artificial dams, the water flows into the valley and floods the plaintiff's property.

Accordingly, the defendant directly causes the imminent impairment of the plaintiff's property through its own action, even if this initiates a stretched causal process and ultimately leads to a natural event - namely the glacial lake outburst flood, the so-called GLOF. However, this "final" natural event does not occur by chance, but is to be expected according to the laws of atmospheric physics. Because the defendant intervenes in the climate by releasing CO2 emissions, according to the plaintiff's submission, this is precisely where the individual acts of the causal chain take place, almost linearly, without coincidences and physically calculable. A third party does not intervene in this chain of causation. There is also no need for further randomly occurring processes and interactions. The present case therefore differs significantly from the cases cited by the defendant for its claim for further grounds for attribution (see BGH, judgment of 16.02.2001 - V ZR 422/99, para. 9 et seq. "mildew"; BGH, judgment of 20.09.2019 - V ZR 218/18, para. 10 et seg. "birch pollen"; BGH, judgment of 07.07.1995 -V ZR 213/94, para. 7 et seq. "wool lice"). Unlike there, this case is not about disturbances that are largely independent of human influence, triggered almost exclusively by natural events, which often only occur by chance and are therefore not even to be expected due to natural laws.

The fact that the defendant disputes the plaintiff's account and presents the physical processes in a much more complex and random manner cannot change the fact that the plaintiff's account is to be taken as the basis for the conclusiveness test.

(C)

Even if, due to the multiple links in the causal chain described above, no direct but only an indirect connection between the defendant's actions and the impending impairment were to be assumed, the attribution criteria required by case law would be fulfilled.

According to the case law of the Federal Court of Justice, essential attribution criteria are, among other things, causation, control of risk, benefit or the existence of a duty to ensure safety or to act, e.g. in the event of a technical defect or disruption by tenants (see BGH, judgment of 20.11.1992 - V ZR 82/91, para. 41 f.; BGH, judgment of 18.12.2015 - V ZR 55/15, para.

22; BGH, judgment of January 27, 2006 - V ZR 26/05, para. 5; BGH, judgment of April 1, 2011 - V ZR 193/10, para. 12).

In this case, there are factual grounds for attribution under the aspects of causation, risk control and benefit. The defendant, as the parent company of the RWE Group, caused the emission of large quantities of  $_{CO2}$ , since the construction and operation of the greenhouse gas-emitting power plants was and is based on its free will and on its fundamental entrepreneurial decision. Through its key decisions, it dominates and controls the subsidiaries that operate the power plants; as the parent company, it derives economic benefit from coal-fired power generation and the inevitable release of hundreds of millions of tons of  $_{CO2}$  into the atmosphere. Unlike potentially affected property owners, as a large industrial operator of coal-fired power plants with scientific and legal expertise, it was and is able to assess and control (at least to a certain extent) the risk of a violation of legal interests (see Salje comment on the judgment of the Higher Regional Court of Düsseldorf of June 19, 1998 - 22 U 111/97, JZ 1999, 685 et seq.). In this respect, it also bears responsibility for the risk it has taken of endangering the legal interests of third parties if this risk actually materializes.

(d)

The question of whether the defendant's actions were and are in breach of duty is irrelevant in the context of attribution.

The term "breach of duty" does not fit here for systematic reasons alone. It is borrowed from tort law (Sections 823 et seq. BGB) and is basically intended to establish the unlawfulness of an omission in the event that the tortfeasor breaches a legal obligation to act; the main cases of application are road safety obligations and inherent liability, i.e. liability arising from previous endangering actions.

In a constellation such as the one at hand, no further attribution feature in the form of a breach of duty is required. According to the plaintiff's account, the impairment of the plaintiff's property is not threatened due to an omission by the defendant, but due to a positive action. The causal chain described is neither accidental nor is the impairment of property feared by the plaintiff exclusively due to natural forces.

## In detail:

The trigger for the disturbance to be worried about here should be a (conscious) positive action by the defendant - namely the release of CO2 in the course of its energy production. However, in cases in which a sufficient and attributable condition was created by a positive action - for example by creating and maintaining a garden pond or planting trees - the Federal Court of Justice has not examined the existence and breach of a duty to ensure public safety (see BGH, judgment of 20.11.1992 - V ZR 82/91, para. 41 et seq. *"Froschlärm"*; BGH, judgment of 07.03.1986 - V ZR 92/85, para. 14 et seq. *"Baumwurzeln"*).

In the case of a positive act, in tort law, the criterion of unlawfulness in addition to the criterion of adequacy is only examined in individual cases when the success of the infringement does not occur as part of a normal course of action, but rather by chance (BGH, judgment of 07.07.2020 - VI ZR 308/19, para. 11 et seq.; OLG Hamm, judgment of 25.06.1998 - 6 U 146/96, para. 12 et seq.; Grüneberg/Sprau, loc.cit., Section 823, para. 26). According to the plaintiff's submission, however, this is not the case. The causal chain described after the release of CO2 emissions

by the defendant is not an unusual or remote course of action because it is accidental and/or decisively influenced by the unexpected intervention of third parties, but is scientifically calculable (see above).

The breach of duty is also not relevant because the impending impairment of property could have been triggered by natural events alone. This is not the case here.

The Federal Court of Justice does impose special requirements for limiting liability in accordance with Section 1004 BGB in cases where the impairment is exclusively due to natural forces in order to be able to consider the defendant as the disturber: The mere fact of ownership of the property from which the impact emanates is not sufficient; rather, the impairment must be at least indirectly attributable to the will of the owner. Disturbances caused by natural events are only attributable to the owner of a property if he has made them possible through his own actions or if the impairment has been caused by an omission in breach of duty (see BGH, judgment of 07.07.1995 - V ZR 213/94, para. 7 "Wollläuse"; BGH, judgment of 12.02.1985 - VI ZR 193/83, para. 9 "Felssturz"). In the former case, it is generally sufficient for attribution that a condition was created that enabled or facilitated the disturbance. If, on the other hand, a condition in the sense of a positive action was not created, the Federal Court of Justice will consider whether the type of use of the land from which the natural disturbance (e.g. leaf fall, flying needles) originates gives rise to a duty to safeguard, i.e. a duty to prevent possible impairments. In this respect, nothing different applies to natural immissions than to immissions due to a technical defect. Whether such an obligation exists must be examined on the basis of the circumstances of each individual case. The conflict resolution rules of public and private neighboring law as well as the type of use of the neighboring properties and the preventive controllability of the disturbance are decisive here. In the case of natural immissions, the decisive factor is whether the use of the disturbing property is within the scope of proper management (see BGH, judgment of 14.11.2003 - V ZR 102/03, para. 24 with further references; see also BGH, judgment of 16.02.2001 - V ZR 422/99, para. 9 ff. "Mehltau"; BGH, judgment of 02.03.1984 - V ZR 54/83, para. 9).

In the present case, however, the impending impairment according to the plaintiff's submission is not exclusively due to natural forces, but is initially and

was significantly caused by human influences, namely by the release of considerable amounts of  $_{CO2}$ . Through the emissions of its subsidiaries, the defendant has created the condition which, according to the plaintiff's submission, enables or favors the disruption. In view of this positive action, a breach of duty in the sense of a breach of a possible duty of care is not necessary to establish liability.

### (5)

The defendant's capacity to cause interference cannot be denied because the plaintiff seeks liability for imminent <u>cumulative</u>, <u>distance and long-term (consequential) damages</u>.

The defendant's view that such summation, distance and long-term (consequential) damages cannot be regulated by means of individual liability law, but that solutions for climate change can only be found and implemented at the state and political level (cf. pp. 130, 163, 385 et seq.; also: Wagner, Klimahaftung vor Gericht: Eine Fallstudie, p. 52; Ahrens, VersR 2019, 645 et seq.; Keller/Kapoor, BB 2019, 707 et seq.; Chatzinerantzis/Appel, NJW 2019, 881 et seq.), the Senate does not agree.

### (a)

The judgment of the Federal Court of Justice in the so-called "*forest damage case*" (BGH, judgment of December 10, 1987 - III ZR 220/86) cited by the defendant as the (main) argument in this context does not contain such a general exclusion of civil liability in the case of cumulative, distance-related and long-term consequential damage.

The case is not based on a comparable factual constellation. The owner of a forest and agricultural business sued both the Federal Republic of Germany and the federal state of Baden-Württemberg for damages due to the damage to his forest and the resulting decline in forestry yields. He argued that the damage should be regarded as part of the widespread forest dieback in Germany. The forest dieback is based in first primarily on the large-scale impacting

air pollution, especially in the form of sulphur dioxide and its "conversion products" as well as nitrogen oxides. The causes of the damage to the forest were mainly pollutants from three areas: emissions from commercial and industrial plants, from private combustion plants (oil heating systems) and from motor vehicles, aircraft and rail vehicles. The defendants would have to compensate the damage in accordance with the principles of official liability and expropriation-like or expropriatory interference, among others, because they had authorized, permitted or allowed the aforementioned emissions. The lower courts had dismissed the action; the BGH dismissed the plaintiff's appeal.

The case outlined above is not comparable with the case here. The only thing the two cases have in common is that they both originate from emissions from industrial plants. At that time, however, it was not - as here - about a very specific type of emissions, but about air pollution in various forms and modes of action. The forest damage was or is mainly caused by so-called "*acid rain*", in which the harmful exhaust gases reach plants and soil as a corrosive mixture through precipitation. Furthermore, it was not - as in this case - an individual emitter who was sued for specific emissions and their concrete effects, but the federal and state governments as the approval authorities. Nor were the federal and state governments sued for a specific permit, but in general for the approval/authorization of all relevant emitting plants, roads, airports, etc.

At the time, the BGH examined all possible bases for claims for damages and denied their requirements. § Section 1004 of the German Civil Code (BGB) was not discussed as a basis for a claim; instead, the examination of Section 14 of the Federal Immission Control Act (BImSchG) took up a lot of space. The claim for damages pursuant to § 14 sentence 2 BImSchG was denied by the Federal Court of Justice due to the impossibility of attributing damage. It was not possible to attribute the damage incurred by the individual forest owner to one or more specific emitters individually (see BGH, loc. cit., para. 13). The proof of causality did not succeed because there was no concretely alleged causal chain at the end of which one or more specific emitters were named. This was due to the problem that the claimed forest damage was primarily caused by locally occurring *"acid rain"*. The fact that it depends largely on the

The fact that the direction of the wind depended on the region in which the harmful exhaust gases affected plants and soil in the form of precipitation made it considerably more difficult to present and prove a concrete causal chain with regard to the exhaust gas molecules that ultimately had a harmful effect.

However, the impossibility of proving causality in the case of forest damage does not fundamentally argue against the possibility of civil liability for environmental damage. On the contrary, the Federal Court of Justice has expressly deemed forest damage to be worthy of compensation and in need of compensation (see BGH, loc. cit., para. 34).

The reasoning of the Federal Court of Justice in the forest damage case cannot be applied to the present case (see also Schirmer, Nachhaltiges Privatrecht, 2023, p. 184 et seg.; Schirmer, JZ 2021, 1099 et seg.; Frank, NVwZ 2017, 664 et seg.; Kling, KJ 2018, 213 et seq.). Unlike the forest damage described above, climate damage is caused regardless of the path taken by the individual greenhouse gases emitted by specific emitters, as it is a global event. According to the plaintiff's submission, all CO2 emissions in the atmosphere are indistinguishably mixed, so that all energy producers are cocausers and only the amount of the respective contribution to causation is questionable. Even if a parallel between forest damage and climate damage may be seen in the fact that the impact on forest owners and climate damage victims also depends on factors that cannot be influenced, such as wind direction or the geographical location of a glacial lake, this does not affect the question of possible proof of causality. It should also be borne in mind that the decision in the forest damage case dates back to 1987. The technical possibilities that have developed to date and the scientific knowledge that has been gathered in the meantime mean that proof of causality cannot be ruled out in this case.

Ultimately, the only fundamental conclusion that can be drawn from the BGH's decision in the forest damage case is that the state should not be liable for compensation in cases where individual proof of causality cannot be provided and private emitters cannot therefore be held liable. The state does not have a kind of guarantee liability for the realizability of claims for damages by damaged forest owners against (unnamed) operators of emitting plants. There is therefore no guarantee liability on the part of the public sector for plants operated with a permit (see BGH, judgment of 10.12.1987 - III ZR 220/86, para. 17 et seq.). The BGH does not formulate a fundamental exemption from liability under civil law for the plant operators themselves for their emissions or the consequences of these emissions in the cited decision.

# (b)

The exclusion of civil liability in a case such as this also does not follow from the <u>explanatory memorandum to the EIA Act and the Environmental Liability Act</u>. The defendant's argument that the committee report of 28.06.2017 on the implementation of Directive 2014/52/EU (EIA Amendment Directive) of the European Parliament and of the Council of 16.04.2014 indicates that general environmental pollution cannot be regulated by individual liability law is not convincing.

The committee report states, among other things (BT-Drs. 18/12994, p. 19 f.):

"The amendment adapts the wording to the wording of Annex IV No. 4 of the amended EIA Directive. The regulation is limited to the description of the factors that may be significantly affected. A calculation of the effects of an individual project on the climate is not required at this point and - see the justification below for bb) ccc) - is not possible anyway."

Re bb) ccc):

"Specific climate change impacts cannot be attributed to an individual project / greenhouse gas emitter. However, if relevant for the approval decision, the type and extent of greenhouse gas emissions must be stated in the EIA report."

The environmental impact assessment is an administrative procedure (§ 4 UVPG). The specific passage quoted deals with information that must be included in the EIA report. This serves to decide on the permissibility of a project. The fact that the legislator did not consider it necessary and/or possible to calculate the effects of a project on the global climate for the EIA report - as the above-quoted justification reads - does not exempt the Senate from clarifying the question of actual imputability, which requires evidence in this case. A fortiori, from this reasoning

It cannot be concluded that the legislator generally did not intend to impose individual liability under civil law in climate matters.

The above statements also apply mutatis mutandis to the reasons given by the defendant (with reference to Ahrens, VersR 2019, 645 ff., 653) for the government draft of the Environmental Liability Act. If the legislator has established general principles here at all, it has merely referred to the difficulties of proof that have already been identified in connection with the so-called

"forest damage case" have been discussed (see Schirmer, Nachhaltiges Privatrecht, 2023, pp. 186, 266).

## (C)

The defendant also argues, without success, that there are concerns that <u>the judiciary is</u> <u>being instrumentalized</u> to enforce environmental policy goals and that it is being overburdened by the enforcement of individual claims ("*everyone against everyone*") due to contributory causation of climate change.

This argument is not expedient from the outset because it does not relate to a legal examination of the requirements for claims under Section 1004 BGB, but is rather of a political nature.

Moreover convinces it also in the matter not. Because legal disputes before civil and administrative courts and the Federal **Constitutional Court** are often (also) to enforcement political interests, which is not inadmissible per se. The "total liability" argument "total liability" of each issuer and the (supposed) wave of lawsuits "everyone against everyone" are ultimately opposed by the filter of adequacy and the characteristic of materiality. This is shown by a simple calculation example, if the annual CO2 emissions of the defendant (according to the 2014 annual report: 164 million tons in 2013) are set in relation to the average annual CO2 emissions of a German citizen according to the Federal Environment Agency, this is 10.3 tons (https://www.umweltbundesamt.de/service/uba-fragen/wie-hoch-sind-die- greenhousegas-emissions-per-person). This results in a quotient of 0.000000628. In addition, the present legal dispute in particular shows how special the initial conditions are in cases of this kind.

and how time-consuming and cost-intensive it is to conduct such proceedings.

Overall, the defendant's argument that solutions to this conflict can only be implemented at the state and political level is aimed at warding off claims (of emission damage) by affected owners from the outset, without having to enter into a legal examination or even a gathering of evidence on the disputed facts. The Senate sees no legal basis for dealing with the present case in this way.

(6)

The fact that, according to the plaintiff's submission, the defendant is one emitter in a whole series of industrial CO2 <sub>emitters</sub>, i.e. <u>one interferer among several</u>, does not prevent the plaintiff from claiming solely against the defendant as the interferer.

This applies even if, in addition to the liability of the defendant and other <sub>CO2</sub> emitters as the party disturbing the action, liability of the owner of the glacier lagoon under Section 1004 (1) BGB as the party disturbing the condition should be considered. The defendant points this out at various points: The actual disturbance does not originate from the operation of its power plants, but from the glacial lake, which is why the owner of Laguna Palcacocha has a duty to ensure safety.

In the case of a majority of interferers, however, the claim exists against each of them. The type and extent of the contribution to the act or the interest of the individual party in the realization of the disturbance is not initially relevant when selecting the disturber; the entitled party - in this case the plaintiff - therefore does not need to be referred to another disturber (BGH, judgment of 27.05.1986 - VI ZR 169/85, para. 16; Erman/Ebbing, loc. cit., § 1004, para. 137 f.; Grüneberg/Herrler, loc. cit, § 1004, para. 26).

dd)

The (imminent) impairment of property alleged by the plaintiff is unlawful because the result brought about by the disruptive act - the CO2 <sub>emissions</sub> - is unlawful.

64

contradicts the legal order. The plaintiff is not under an obligation to tolerate under Section 906 BGB, Section 14 BImSchG or other reasons that would invalidate the claim for injunctive relief under Section 1004 (1) sentence 2 BGB.

# (1)

According to the plaintiff's submission, the (imminent) encroachment on his property is <u>unlawful</u>.

It is not a question of the unlawfulness of the disruptive act (so-called action injustice), but rather whether the success brought about contradicts the legal order (so-called success injustice). The Senate does not agree with the defendant's contrary view (based on Krüger, Festschrift für Norbert Frenz, 2024, p. 259 et seq. among others) that a defense claim pursuant to Section 1004 (1) BGB requires an impairment due to unlawful action by the disruptor, which is lacking here, as the emissions released by it or its daughters were approved.

# (a)

The defendant's understanding of the law corresponds neither to the wording of Section 1004 BGB nor to the motives of the German Civil Code. Unlike Section 823 (1) BGB, Section 1004 BGB does not require any unlawful infringement of legal interests; rather, its second paragraph defines the requirement of unlawfulness negatively: "...*the claim is excluded if..."*. Accordingly, the Motives to the German Civil Code (BGB Motives III, Fourth Title, Property Claim, p. 392 f.) refer to the "*property claim*" - which is what Section 1004 BGB is according to the system of the BGB (Book 3, Section 3, Title 4: Property Claims):

"1 Ownership requires an actual condition corresponding to its content. This means that the owner has a right against other persons to establish this condition, provided that the conduct of these other persons stands in the way of the establishment of the legal condition. ... The claim is directed at nothing more than the establishment of the actual state in accordance with the law for the future. It is irrelevant whether the situation that conflicts with the content of the right was brought about by an intentional or negligent act by another person or whether there was only an objective infringement of the right."

The defendant's reading also contradicts the result of an overall consideration of the formulations in Sections 903, 985, 986, 1004 (1) and (2) BGB and the rule-exception relationship expressed therein. According to this, the owner of a property can use it as they wish and exclude others from any interference unless and until they have to tolerate this interference for reasons that the interferer must explain and prove (Sections 1004 (2), 986 (1) BGB; see BGH, judgment of 13.05.2022 - V ZR 7/21, para. 23 et seq.). The law therefore links the legal consequence of Section 1004 BGB to any impairment that the owner is not obliged to tolerate. The claim for removal is therefore not based on the unlawfulness of the encroachment, but already on the condition that contradicts the content of the property. Any encroachment on the property must therefore be considered unlawful unless it can be shown that the entitled party is obliged to tolerate it.

The link to the unlawfulness of the disruptive act advocated by the defendant therefore does not fit the position of § 1004 BGB and the conception of the Civil Code, according to which this provision is a complementary provision to § 1004 BGB.

§ Section 985 BGB - which, according to its wording, also does not presuppose unlawful possession - is intended to cover and ward off all impairments of property that are not regulated in Section 985 BGB. The task intended by the legislator of the provision of § 1004 BGB, together with § 985 BGB, to comprehensively protect property and the associated control of property (see BGH, judgment of 04.02.2005 - V ZR 142/04, para. 6), could only be incompletely fulfilled if the so-called wrongful act is used as a basis.

(b)

The view held by the Senate, according to which the decisive factor is whether the success brought about is contrary to the legal order, corresponds to the (now) h.M. in of the literature (cf. et al. Erman/Ebbing, loc. cit., § 1004, marginal no. 34 et seq.;

Ring/Grziwotz/Schmidt-Räntsch, NK-BGB, Volume 3: Property Law, 5th edition 2022, § 1004, para. 90; Grüneberg/Herrler, loc. cit., § 1004, para. 12; BeckOGK/Spohnheimer, loc. cit., § 1004, para. 47 et seq.; BeckOK BGB/Fritzsche, loc. cit., § 1004, para. 59; insofar as the defendant bases its view on BeckOK BGB/Fritzsche, loc. cit, para. 89, Fritzsche does not differentiate comprehensibly and with an unconvincing reference to Section 912 BGB between claims for removal and claims for injunctive relief; in the latter case, the illegality of the disruptive act is generally decisive).

The Federal Court of Justice also allows the unlawfulness of the encroachment to be sufficient for a defense claim under Section 1004 BGB. In some decisions, it is literally stated that "*it is not the unlawfulness of the encroachment, but the condition that contradicts the content of the property* (§ 903 BGB)" that justifies the defense claim (BGH, judgment of December 19, 1975 - V ZR 38/74, para. 13; BGH, judgment of January 24, 2003 - V ZR 175/02, para. 13 ff., 25). Although these decisions dealt with the removal of an impairment due to a disturbance of the condition and not with a claim for injunctive relief pursuant to Section 1004 (1) sentence 2 BGB, the case law cited can be applied to the present case. Here, as there, it is a matter of taking a measure to remedy the impairment of property. The plaintiff is not demanding the cessation of CO2 emissions as the disruptive act, so that the defense claim does not have the consequence that an act that may be lawful as such would be prohibited.

In other decisions, the Federal Court of Justice has not rejected a claim for injunctive relief pursuant to Section 1004 (1) sentence 2 BGB simply because the disruptive act was lawful (see, for example, BGH, judgment of 17.09.2004 - V ZR 230/03, para. 11 et seq.). In the case cited, the defendant there cleared part of its property with official permission and therefore lawfully. Two of the trees left standing lost their stability as a result of the clearing and fell onto the plaintiff's property during a thunderstorm, causing damage. The Federal Supreme Court stated that the plaintiff would have had a claim for injunctive relief to restrict the permitted clearing measures to the extent that remained safe for the stability of the protected trees. However, this failed elsewhere, so that only a secondary claim for compensation pursuant to Section 906 (2) sentence 2 BGB could be considered by analogy (cf. in this context also BGH, judgment of March 2, 1984 - V ZR 54/83, para. 7, 10).

Even in the so-called *"smoker case*" (BGH, judgment of 16.01.2015 - V ZR 110/14, para. 19 et seq.), the BGH did not deny a claim for injunctive relief pursuant to Section 1004 (1) sentence 2 BGB simply because the disruptive act (smoking on one's own balcony) was lawful as such; rather, it focused on the health impairment of the plaintiffs.

Insofar as the defendant relies on a decision of the Higher Regional Court of Munich of 12.10.2023 (32 U 936/23), among others, to support the correctness of its view, the statements made there on illegality cannot be transferred to the present case. First of all, the legal consequence sought is different: In the Munich Higher Regional Court decision, the reduction of future greenhouse gas emissions by banning the production and marketing of combustion engines was sought; thus, in a civil law dispute, an activity of the defendant there was to be significantly restricted or prohibited by a judgment with inter partes effect, although this was permitted under public law. The plaintiff here, on the other hand, is not demanding that the defendant refrain from further emissions, but rather - by way of substitute performance or assumption of costs - safety measures due to the threat of impairment of his property. In addition, the Munich Higher Regional Court's decision concerned an encroachment on the general right of personality, which is not comparable to the right of ownership due to its character as a so-called framework right. In view of the open facts of the case, the unlawfulness is not indicated by the fact of the offense. Rather, the interference with the right of personality is only unlawful if the interest of the person concerned in protection outweighs the interests of the other party worthy of protection (BGH, judgment of May 8, 2012 - VI ZR 217/08, para. 35 with further references; Grüneberg/Sprau, loc. cit., Section 823, para. 95). However, the property affected here according to the plaintiff's submission is not a framework right in this sense.

## (2)

<u>The plaintiff</u> is under no legal or factual <u>obligation to tolerate</u> the (impending) impairment of his property within the meaning of Section 1004 (2) BGB.

The defendant as the interferer must demonstrate and prove the conditions for the plaintiff's duty to tolerate (see BGH, judgment of December 2, 1988 - V ZR 26/88, para. 12, 14; BGH, judgment of May 13, 2022 - V ZR 7/21, para. 23 et seq.; OLG Hamm, judgment

of 06.07.2017 - 5 U 152/16, para. 45). It has not succeeded in doing so. Any (impending) impairment of the plaintiff's property must therefore not be tolerated by him; it is unlawful (see Grüneberg/Herrler, loc. cit., Section 1004, para. 34; Erman/Ebbing, loc. cit., Section 1004, para. 36).

## (a)

The plaintiff's duty of acquiescence arises neither from Section 906 (1) BGB nor from Section 906 (2) BGB nor from an analogous application of these provisions or a "first right conclusion".

## (aa)

<u>§ Section 906 (1) BGB</u>, which stipulates an obligation to tolerate insignificant impairments, is not relevant because, according to the plaintiff's submission, there is a threat of a significant impairment of the use of his property in the form of a GLOF.

According to established case law of the Federal Court of Justice, the question of materiality (or materiality) is assessed according to the *"perception of a reasonable average person and according to what can be expected of him taking into account other public and private interests*" (BGH, judgment of 26.09.2003 - V ZR 41/03, para. 6; BGH, judgment of 27.11.2020 - V ZR 121/19, para. 10; BGH, judgment of 20.11.1992 - V ZR 82/91, para. 44; BGH, judgment of 06.07.2001 - V ZR 246/00, para. 7).

According to this standard, the plaintiff cannot reasonably be expected to accept the feared impairment of his property and the existing building by a GLOF emanating from the lagoon.

However, in the case in dispute, the emission and the (imminent) immission/impairment are not of the same nature: While the  $_{CO2}$  molecules released in the power plants of the defendant or its subsidiaries are to be regarded as emissions, the plaintiff fears an impact on his property in the form of a tidal wave, namely the flooding of his property by water or debris flow, for which, according to his submission, the defendant's CO2 emissions are said to be partly responsible. Even if emissions can be harmless in themselves, there is a significant impairment as soon as they are of a nature and

extent are capable of causing dangers and considerable disadvantages for the neighborhood (see BGH, judgment of 20.11.1998 - V ZR 411/97, para. 7). According to the plaintiff's submission, the released CO2 molecules, which are harmless in themselves, caused a danger in this case: Together with other greenhouse gases and factors, they had accelerated climate change and thus caused the water volume of Laguna Palcacocha to increase to an extent threatening to the plaintiff's property due to increased glacier melting. This development would ultimately lead to the damage or even complete destruction of the plaintiff's property.

### (bb)

The existence of a duty to tolerate pursuant to <u>Section 906 (2) sentence 1 BGB</u> - as well as a duty to tolerate pursuant to Section 906 (1) BGB, which has already been denied above for other reasons - must be denied because the necessary proximity between the emitter and the property (possibly) affected by the immission is lacking.

#### (aaa)

§ Section 906 of the German Civil Code (BGB) is the general standard for the protection of neighbors under civil law, which is intended to reconcile the conflicting, but in principle equally important, interests of different property owners; certain disturbances are to be accepted from the neighborly relationship - if necessary in exchange for monetary compensation - in order to enable reasonable use of the property (BGH, judgment of 25.10.2013 - V ZR 230/12, para. 8; Münchener Kommentar/Brückner, 9th ed. 2023, BGB, § 906, para. 1; Grüneberg/Herrler, loc. cit, § Section 906, para. 1; Erman/Wilhelmi, BGB, loc. cit., Section 906, para. 1 et seq.; Staudinger/Roth, Neubearbeitung 2020, update 31.07.2024, Section 906, para. 1 f.; Ring/Grziwotz/Schmidt-Räntsch, loc. cit., Section 906, para. 5b;

BeckOGK/Klimke, as at 15.10.2024, BGB, Section 906, marginal no. 2).

The nature of the provision as a standard protecting neighbors is reflected in the wording of the provision in the characteristic of the customary local use of the property. For the examination of local custom, the question is whether a majority of properties in the vicinity are used with a reasonably constant impact in terms of type and extent (BGH, judgment of 23.03.1990 - V ZR 58/89, para. 19, with further references; Grziwotz/Lüke/Saller,

Praxishandbuch Nachbarrecht, 3rd edition 2020, ch. 3, para. 78). The boundary of the settlement area can be drawn narrower or wider depending on the situation in the individual case (BGH, loc. cit.).

# (bbb)

The neighborly relationship required by Section 906 BGB does not exist in the present constellation of a plaintiff living in Peru and an energy company operating in Germany or Europe, whose parent company is the defendant. It is irrelevant whether the concept of "neighbor" under the BImSchG is applied or whether the concept of "neighbor" is defined more broadly.

The Senate considers it appropriate to determine the comparison area according to § Section 906 of the German Civil Code (BGB) is based on the concept of neighborhood used in the context of the BImSchG (see also OLG Düsseldorf, judgment of July 9, 2012 - I-9 U 138/11, para. 27 f.; probably also Krüger, Festschrift für Norbert Frenz, 2024, p. 271 ff.); the defendant also assumes this (see pp. 742, 3750 of the file). According to the principles of the BImSchG, however, the parties are not neighbors.

Neighbourhood within the meaning of §§ 3 to 5 BImSchG is characterized by a qualified affectedness that is clearly distinct from the effects that can affect the individual as part of the general public; in the interest of clear and manageable contours and thus ultimately in the interest of legal certainty, it presupposes a special relationship to the installation (the subject of the permit) in the sense of a closer spatial and temporal relationship of the citizen to it. The neighborhood thus only includes those persons who, according to their living circumstances, are exposed to the effects of the installation in a manner comparable to that of their place of residence (BVerwG, judgment of October 22, 1982 - 7 C 50/78, para. 12 f.).

There is no such spatial and temporal relationship between the defendant's emitting installations and the plaintiff's property. The parties are not neighbors in the sense of immission control law. Factors other than spatial proximity are decisive for the fact that the impairment - according to the plaintiff's submission - also triggered by the defendant's emissions in Germany occurs or can occur precisely on the plaintiff's property in Peru. The (possible) impact on the plaintiff's property has nothing to do with the spatial location of the

The reason for this is solely the fact that the plaintiff's property is particularly exposed below a glacier and a glacial lake.

Even if the concept of the neighborhood required by § 906 BGB is defined more broadly, this does not lead to a different legal assessment.

Some of the case law and literature completely dispenses with the criterion of neighborhood at this point (Frank, ZUR 2013, 28 ff., 31; Frank, NJOZ 2010, 2296 ff., 2299; Schirmer, Nachhaltiges Privatrecht, 2023, p. 267), affirms the requirement of neighborhood within the meaning of Section 906 BGB if the affected property is located in the area of influence of a source of disturbance (see, for example, Erman/Wilhelmi, loc. cit, § Section 906, para. 13; RG, judgment of 21.04.1941 - V 103/40, BeckRS 1941, 100179, para. 13), or lets the area of the neighborhood end where an immission can no longer be determined or can no longer be assigned to a specific source (Grziwotz/Lüke/Saller, Praxishandbuch Nachbarrecht, 3rd edition 2020, ch. 1, para. 53).

Based on the latter view, a neighborhood of the parties must also be denied, since the causal consequences of climate change induced by the emission of greenhouse gases described by the plaintiff cannot be attributed to a specific source, i.e. a specific  $_{CO2}$  emitter: It is true that the plaintiff claims that the defendant is responsible for a certain proportion of global  $_{CO2}$  emissions. However, the possibility of quantifying a contribution to causation cannot be equated with the attribution of specific emissions to a specific emission source. The latter is not possible in the case in dispute; this is also irrelevant due to the (alleged) mode of action of the  $_{CO2}$  emissions. Rather, anyone who emits  $_{CO2}$  is a source of disturbance without exception. According to the plaintiff's submission, the  $_{CO2}$  emissions all rise into the atmosphere at a determinable percentage and regardless of where they are emitted, where they mix indistinguishably. Due to the higher concentration of greenhouse gases, there is less heat radiation from the earth, resulting in a global rise in temperature. The atmospheric changes affecting the plaintiff's property and the surrounding mountains and glaciers in the Peruvian Andes are therefore global and attributable to many sources.

Insofar as some of the literature completely dispenses with the criterion of neighborliness in the context of the examination of Section 906 BGB or the requirements of neighborliness

within the meaning of § 906 BGB if the affected property is located in the area of influence of a source of disturbance, this must be rejected.

However, a duty to tolerate on the part of the plaintiff pursuant to Section 906 (2) BGB could be considered in principle if this view were to be followed. According to the plaintiff's assertion, the CO2 emissions of the defendant or its subsidiaries have an impact on his property in Peru, as there is a risk of global warming there. In view of the even distribution of the emitted CO2 in the atmosphere, the plaintiff's property is exposed to the emissions emanating from the defendant's plants in a comparable manner to the properties of the people living at the location of the emitting plants. The toleration obligations of § 906 BGB would therefore apply to everyone, either as part of the neighborhood or because this characteristic is waived anyway. On the other hand, anyone - and therefore also the plaintiff - as a neighbor of the property or because of the waiver of the characteristic of the neighborhood would be entitled to compensation claims pursuant to § 906 para. 2 sentence 2 BGB. This legal consequence corresponds to the simple statutory and constitutional connection between duty to tolerate and compensation claim Münchener (see

Kommentar/Wagner, 9th ed. 2024, BGB, § 823, para. 1177).

First of all, it can be argued against the above-mentioned view that the limiting condition of the neighborhood is reflected in the wording of Section 906 (2) BGB in the characteristic of local custom; in the Senate's view, this implies the consideration of a definable comparative area. Furthermore, the view presented contradicts the character of Section 906 BGB as a general standard for the protection of neighbors under civil law. According to its legislative sense and purpose, the provision serves to harmonize public and private immission control law (see BT-Drs. 12/7425, p. 86 ff.). A property owner has a variety of options to defend himself against an emission emanating from a neighbor under administrative law, for example by questioning the local custom. If he does not use these options or is unsuccessful, he should not be able to assert claims under private law because he is then subject to the toleration obligations of Section 906 BGB.

However, the plaintiff, who lives in Peru, had no opportunity - in fact or in law - to take legal action against the emissions from the defendant's power plants. In this case, however, it is not clear why he should be subject to the toleration obligations of Section 906 (2) BGB. This would only appear justified if, in return, the same administrative law options were available to him as to the local property owners. Harmonization between public and private immission control law would therefore not be achieved if the toleration obligations of § 906 BGB were extended to the general public in a case such as this.

#### (CC)

The "<u>first right conclusion</u>" drawn by the defendant, according to which the protection of distant properties against "permitted" emissions cannot in principle go any further than for nearby properties - and indeed without cost compensation within the meaning of Section 906 (2) sentence 2 BGB - does not hold water either.

This argumentation of the defendant is contradicted by the wording of the provision, its meaning and purpose as described above and, moreover, the result achieved:

An explicit legislative assessment to the effect that the owner of a property located far away from an emitter cannot have any claims under private law to protective measures or compensation, provided that the emitter only complies with the emission limits and permits under public law applicable to it locally or that its emissions are customary in the locality, cannot be established. It would also be incompatible with Sections 903, 985 and 1004 of the German Civil Code and the protection of property guaranteed by fundamental rights. For the affected property owner, it makes no difference whether a significant impairment of his property is due to emissions from the neighborhood or from a distance (Frank, ZUR 2013, 28, 31; Frank, NJOZ 2010, 2296, 2299 f.). As a result, it is also not comprehensible why the affected owner of a property that is not located in the vicinity of the emitting property - such as the plaintiff's property due to the permitted remote emissions without being able to claim compensation for this like the neighbor.

Contrary to the opinion of the defendant, it does not follow from the "*Kupolofen ruling*" of the Federal Court of Justice (BGH, ruling of 18.09.1984 - VI ZR 223/82) that the general public must tolerate what the neighbor has to tolerate, and - unlike the neighbor - without compensation for costs.

The aforementioned decision deals with the question of the allocation of the burden of proof in the context of tortious claims for damages. The plaintiffs demanded compensation for damage to their vehicles parked in their employer's company parking lot caused by dust from the cupola furnace operated on the neighboring defendant's property. Based on the principles of proof applicable to Section 906 BGB and the principles for a reversal of the burden of proof in cases of producer liability, the Federal Court of Justice assumed that the emitter had to demonstrate and prove that the emissions emanating from its property were within the scope of normal local use of its property and that it had taken the economically reasonable precautions to protect third parties from damage caused by immissions. Since the provisions of neighboring law in the regulatory area covered by them are decisive for determining whether an unlawful act within the meaning of § 823 para. 1 BGB exists, immissions do not lead to tort liability of the emitter towards the affected property owners if the latter cannot defend themselves against them pursuant to § 906 para. 2 sentence 1 BGB because they are based on a customary local use of the emitting property and the economically reasonable precautions taken by the emitter against them fail. In this case, however, the tortious protection of other owners - i.e. the vehicle owners - could not go any further; in this respect, the provision also drew an extreme limit for its object of protection. This is because the interests of the affected property owners are consistently affected by the immissions in the most lasting way; if the law allows the emitter to use his property in an emitting manner towards them, it cannot prohibit this towards third parties due to immissions. Even the fact that Section 906 (2) sentence 2 BGB does not grant compensation to third parties cannot lead to a different assessment of the permissibility of such land use vis-à-vis them (BGH, judgment of 18.09.1984 - VI ZR 223/82, para. 14 et seq.).

These considerations of the Federal Court of Justice cannot be applied to the present case. Differences to the "*Kupolofen judgment*" arise first of all insofar as a tortious claim was at issue there, whereas in the case in dispute it is a matter of a

negatory defense claim under Section 1004 (1) BGB. The decision of the BGH also expressly refers only to the owner of movable property, who cannot be entitled to a claim under Section 906 (2) sentence 2 BGB due to a lack of property-relatedness. In contrast, the plaintiff - according to his submission - is the owner of a property affected by immissions; the property-relatedness required by Section 906 BGB (see BGH, judgment of September 18, 2009 - V ZR 75/08, para. 17 f.) is therefore given. There is a further significant difference between the vehicle owner or owner of a movable property dealt with by the Federal Court of Justice in the Kupolofen case and a landowner located at a great distance - such as the plaintiff in Peru in this case - which makes a transfer of the principles established there appear inappropriate: The BGH had to rule on the rights of property owners whose property (motor vehicles) was located on the neighboring property at the time of the impact of the immissions; the spatial proximity to the emitter property was therefore equally present for both property and property owners. Against this background, the Federal Court of Justice stated in its decision that the affected property owners were "consistently the most sustainably affected". In contrast, the present case is characterized by the fact that the defendant's CO2 emissions generally affect everyone. A particularly high degree of impact on the property owners located in close proximity to the emission source - i.e. the neighborhood within the meaning of Section 906 BGB - cannot be established. Rather, the owners of particularly exposed properties, which may be located all over the world - such as the plaintiff, whose property is located below a glacier and a glacial lake in the Peruvian Andes - are more affected by climate change caused by greenhouse gases than the neighboring property owners. Applying the principles established in the "Kupolofen ruling" to the present case would have the consequence that property owners who do not fall under the term "neighborhood" in Section 906 BGB would not be able to defend themselves against significant impairments if neighboring property owners could not defend themselves against them under Section 906 (2) sentence 1 BGB because they were based on a customary local use of the emitting property and the economically reasonable precautions taken by the emitter against them failed. Unlike the owners of neighboring properties, however, no compensation would be granted to property owners located at a great distance for compensation А objective reason for this

However, there is no evidence that non-neighboring property owners are in a worse position than neighboring property owners despite being equally and in some cases even more affected.

## (b)

<u>Section 14 BImSchG</u> also does not give rise to an obligation to tolerate on the part of the plaintiff within the meaning of Section 1004 (2) BGB. The plaintiff, as a non-qualified affected party, is not entitled to take action within the meaning of this provision.

According to § 14 BImSchG, the cessation of operation of an installation whose approval is incontestable cannot be demanded on the basis of claims under private law that are not based on special titles to prevent detrimental effects from one property on a neighboring property. Only precautions that exclude the adverse effects can be demanded. If these precautions are not feasible or not justifiable according to the state of the art, compensation may be demanded.

As a rule, the provision means that the primary right of defense under neighboring law (right to removal or injunctive relief) is excluded if the owner has previously been given the opportunity in a formal procedure to represent their interests within the framework of the required balancing of public and private interests and to raise objections to the project that affects their property. In this respect, the protection of neighbors under civil law is shifted to the public law procedure in a modified form (see BT-Drs. 12/7425, p. 86 ff.).

In the present case, the central requirement of this provision is not met. The relationship between the parties lacks a neighborly relationship in the sense of a qualified affected party. In this respect, reference can be made to the comments on Section 906 BGB. As a qualified affected citizen, the plaintiff would in principle have had the right and the opportunity to be involved in the approval procedure for the defendant's plants and to raise objections there, §§ 5, 10 para. 3 BImSchG (cf. on the whole: BVerwG, judgment of October 22, 1982 - 7 C 50/78, para. 10 et seq.; BVerwG, judgment of May 7, 1996 - 1 C 10/95, para. 34 et seq.). However, the plaintiff did not have this possibility as a person affected by remote effects - at least in fact.

Furthermore, it must be taken into account that the exclusion of a claim to the cessation of operations standardized in § 14 sentence 1 BImSchG is offset by the neighbor's claims to the implementation of protective measures and, if applicable, compensation claims as compensation; the affected neighbor is therefore not left without rights. If the provision of § 14 sentence 1 BImSchG were to be extended - possibly by analogous application - to those affected by remote effects such as the plaintiff, this would mean that he would have to tolerate the emissions emanating from the defendant, but would not have any compensation claims on his part. The principle of

"tolerate and liquidate", which is expressed in Section 14 BImSchG, would therefore not apply to him. This does not appear to be appropriate; reference is made in this respect to the comments on Section 906 (2) BGB.

### (C)

The provisions of the <u>German Environmental Liability</u> Act (UmweltHG) also do not impose an obligation on the plaintiff to tolerate.

Any claim by the plaintiff against the defendant pursuant to Section 1004 (1) sentence 2 BGB is based solely on the rules applicable to this claim; it must be examined independently of environmental liability regulations. This is because Section 18 (1) UmweltHG expressly states that liability under other provisions - namely a more extensive (see Staudinger/Kohler, Neubearbeitung 2017, Section 18 UmweltHG,

§ Section 18, para. 1) - remains unaffected. Only in the case of liability for nuclear incidents does Section 18 (2) UmweltHG stipulate the priority of liability under the Atomic Energy Act in conjunction with the international conventions listed in more detail.

§ Section 18 (1) UmweltHG is based on the practical consideration that the cases of possible competing liability are diverse and not completely foreseeable and therefore the effects of a conclusively determined priority of liability cannot be estimated. Against this background, the purpose of the provision is to avoid placing injured parties at a disadvantage by introducing an exclusive priority of the UmweltHG compared to the previous legal situation. The possibility of claiming damages on the basis of § 1 UmweltHG is at best intended to improve the position of the injured party, but not to lead to a deterioration of his position. § Section 18 (1) UmweltHG therefore means that competing claims follow the rules that apply to them in their entirety. This applies in particular with regard to the conditions for liability, the scope of liability and in this respect

in particular the maximum liability limits, the existing facilitation of proof and the statute of limitations (for the whole see: Staudinger/Kohler, loc. cit., § 18, para. 2 f.).

(d)

The <u>permits and approvals from (German) authorities</u> for the operation of its plants and the certificates under the Greenhouse Gas Emissions Trading Act (TEHG), to which the defendant repeatedly refers with regard to its CO2 <sub>emissions</sub>, do not force the plaintiff to tolerate a concrete threat of impairment of its property. The TEHG has no legal effect for the period prior to its entry into force on 15.07.2004 (BGBI. I 2004, p. 1578), nor does it prevent affected third parties from asserting defensive rights.

No full legalization of the defendant's emission activities can be derived from Section 5 (2) BImSchG or from the approval regulated in Section 4 TEHG. As a rule, official permits do not create a duty of tolerance for third parties; the public-law approval or state authorization of the construction and use of energy-generating plants at issue here does not restrict the ability of owners affected by remote immissions to assert claims for defense or damages (cf. BVerfG, Chamber decision of May 26, 1998 - 1 BvR 180/88, para. 17; BGH, judgment of May 27, 1959 - V ZR 78/58, 2nd headnote; BGH, judgment of April 20, 1990 - V ZR 282/88, para. 13; Staudinger/Thole, loc. cit, § 1004, para. 522; Ring/Grziwotz/Schmidt-Räntsch, loc. cit., § 1004, para. 93).

Apart from this, the Senate does not agree with the defendant's view that the legislator has made a final decision on the handling of greenhouse gases with §§ 5 para. 2 BImSchG, 4 TEHG in the sense that an emitter who observes the rules of the emissions trading register always behaves lawfully (according to Wagner, Klimahaftung vor Gericht: Eine Fallstudie, 2020, p. 73 f.). On the one hand, this view wrongly focuses on the wrongfulness of the action and not on the (unlawful) result brought about by the action (see above). Secondly, the cited provisions can at best be understood to mean that the greenhouse gas emitters covered by them may not be subject to (further) state or municipal limitation provisions beyond the BImSchG and TEHG - namely through planning law (see BVerwG, judgement

of 14.09.2017 - 4 CN 6/16, para. 13 ff.). The aim of the TEHG is to link emissions to the purchase of allowances and thus make them financially unattractive. From the end of July 2004, the legislator is thus attempting to limit global warming to a certain level via the total number of allowances issued in order to contribute to global climate protection (Section 1 TEHG). Limit or guideline values within the meaning of Section 906 (1) BGB, Section

48 BImSchG does not contain this law. However, the fact that greenhouse gases may still be generally compatible with the global climate up to a certain limit says nothing about the specific compatibility for the individual affected - in this case the plaintiff or his property in Huaraz. This is because the obligations applicable in relation to third parties can be based on other legal aspects and, in order to protect endangered legal interests, can make higher demands and require more care than is standardized in public law provisions (see BGH, judgment of 26.05.1998 - VI ZR 183/97, para. 17).

An exception only applies where a private law obligation has been expressly stipulated, e.g. in Section 14 sentence 1 BImSchG or Section 906 (1) BGB (see above). Otherwise, the principle of the "autonomy of the duties of care under private law" remains; the postulate of the unity of the legal system does not require harmonization of the assessment standards across all areas of today's highly complex legal system (Münchener Kommentar/Wagner, BGB, 9th ed. 2024, Section 823, para. 552 ff., 554).

In any case, the TEHG could only justify the portion of the defendant's emissions that occurred after July 15, 2004. The defendant's share of causation, originally estimated by the plaintiff at 0.47% and most recently at 0.38%, is said to relate to the period from 1965 to 2010 (pp. 313 et seq., 315 of the annex) and now to the period from 1965 to the present. The majority of both time windows thus lie outside the temporal scope of the TEHG.

### (e)

Even insofar as the defendant invokes a - not further explained - "statutory supply mandate" and the <u>general interest in the generation of energy (public services of general</u> interest), it is not possible to derive from this an obligation of the plaintiff to tolerate an imminent impairment of property.

It is true that an adequate energy supply is of the greatest interest to Germany and its inhabitants. However, this fact does not mean that energy must be generated by the defendant and/or by burning fossil fuels. Moreover, an undoubtedly existing need for society as a whole does not automatically determine the specific legal relationship between two private legal entities. Rather, this would require a corresponding statutory order, as is the case in Section 906 (1) BGB for insignificant impairments.

Whether anything else applies insofar as an agreement was actually reached between the Federal Ministry of Economics and Technology and the defendant at the end of 2022/beginning of 2023, according to which the latter is even to increase the annual coal combustion in view of the loss of Russian gas supplies, can be left open. At least up to this point in time, the defendant made the decisions concerning the structural type of energy generation affecting the group on its own responsibility.

In addition, the general interest in Germany in a comprehensive supply of energy is not capable of forcing a citizen of Peru to tolerate an impairment of his property. This applies all the more since, on the one hand, it is a matter of significant impairment and, on the other hand, the plaintiff has no share in the energy generated in Germany.

Insofar as, notwithstanding this consideration, an obligation to tolerate could exceptionally arise from (not expressly regulated) public interests, there would in any case be no obligation to tolerate a significant impairment of property - to be accepted without compensation - as alleged here. This is shown by the case of a drug help center with its accompanying symptoms (judgment of 07.04.2000 - V ZR 39/99, para. 11 et seq.). The plaintiff (there) had primarily demanded that the defendants (there) cease the operation of the drug help center due to the impairment of his neighboring property by the persons cared for in the center (indirect disturbance). In the alternative, he had requested that the defendants be ordered as (indirect) interferers to take appropriate measures to ensure that users of the drug help center and drug dealers do not enter and contaminate his property, that they do not leave used syringes in front of the property, that they do not form crowds of people and, finally, that they do not prevent residents and visitors from entering his property. With a further auxiliary request

He claimed compensation under neighboring law in the amount of DM 15,000 per month due to impairment of the income from his property. The Federal Court of Justice ruled that the claim for closure of the center was excluded due to the general interest in maintaining operations; although the applications for the implementation of defensive and protective measures were (largely) justified, they failed due to the defendant's inability to fulfill them. However, the plaintiff was entitled to monetary compensation based on the principles of expropriation compensation. This claim is part of the legal structure, which is composed of the denial of the full right of defense (main claim for closure of the plant), the remaining defensive powers (auxiliary claims directed at the implementation of defensive and protective measures) and the compensation of the defensive gap through monetary compensation. Accordingly, even an important general interest does not justify a comprehensive disturbance of third-party property without legal consequences for the disturber.

(f)

Finally, the plaintiff is not obliged to tolerate the (allegedly) imminent impairment under the aspect of <u>self-endangerment</u>. The defendant unsuccessfully invokes the fact that the plaintiff (or his legal predecessors) had settled in a no-build zone below the potentially dangerous lagoon without a building permit, which is why he himself is responsible for securing his property and does not deserve protection (pp. 2481, 3752 et seq. of the file). The plaintiff has neither violated an official prohibition on settlement nor is he subject to any duty to tolerate because he settled at the address in Huaraz specified in the application in full knowledge of the danger.

It cannot be established that the plaintiff's house was built in a no-build zone. According to the defendant's own submission (cf. p. 155 of the annex) and the undisputed facts of the contested judgment, which has not been challenged in this respect with a motion to correct the facts, the government's planned settlement bans failed due to resistance from the population. The Senate is bound by this finding pursuant to §§ 314, 529 para. 1 no. 2 ZPO.

The Senate's own impression gained on site also speaks against an existing ban on settlement in the XXXXX district of Huaraz. The plaintiff's property is surrounded by a dense - largely closed - development that is apparently used primarily for residential purposes. Further construction activity was also evident both on the plaintiff's property and in the immediate vicinity (see photos 2-4 SVG I). The Senate therefore assumes at least a de facto toleration or implied approval on the part of the competent authorities and the associated legality with regard to both the plaintiff's property and the neighboring buildings.

The decision of the Federal Court of Justice from 2001 cited by the defendant (judgment of July 6, 2001 - V ZR 246/00, para. 16) also does not justify the assumption of a selfendangerment of the plaintiff; there is a lack of comparability in several respects. The defendant there had been operating a hammer mill on its property in an industrial area for more than thirty years. The production process and noise emissions had remained unchanged since 1986. The operation was officially approved; the noise emissions affecting the property of the plaintiffs there lasted two to five hours every working day, and the relevant noise emission guide values were not exceeded. The plaintiffs acquired their property, which was affected by the situation in this respect, in 1990 and built a residential building on it. It is undisputed that at this time they were aware, or at least could have been aware, of the noise effects that they then wanted to prevent. In this case, the BGH ruled that anyone who settles in the vicinity of an existing source of immission (here: industrial noise from a hammer mill) with knowledge or grossly negligent ignorance is not obliged to tolerate all immissions without restriction, but is obliged to tolerate those that remain within the limits of the permissible guide values.

In the present case, the ultimate danger is said to come from the lagoon, below which the plaintiff has settled in the middle of the urban area of Huaraz at a distance of around 25 km. However, the source of the disturbance is said to be, among other things, the emissions from the defendant's power plants, which, according to the plaintiff's allegation, lead to a warming of the climate, a melting of the glaciers and an unnatural increase in the volume of water in the lake and thus to a threat to property. The defendant, who is burdened with the burden of proof with regard to an alleged self-endangerment, has not explained in detail and it also appears doubtful that the parents of the

plaintiff knew or should have known about the described hazards when acquiring and building on the property in question in Huaraz in 1984. In addition, at the time the parents acquired the property, a series of construction measures had already been successfully carried out to secure Laguna Palcacocha. For example, a safety dam with a height of eight meters had been built over a drainage pipe with a diameter of around one meter (primary dam); in addition, a second, artificial dam (secondary dam) without a drain had been built on the other side.

Moreover, while in the BGH decision cited above the impairments already existed in a constant manner when the plaintiffs acquired the property, in the present case the plaintiff acquired the already developed property from his parents in 2014 and thus at a time when there was no concrete danger from the lagoon because, according to the defendant's own submission, the volume of water in the lagoon could be significantly reduced from 17 million m<sup>3</sup> to 12 million m<sup>3</sup> by June 2015 through a *"drainage process"* initiated by t h e authorities in May 2012. It is also undisputed that the official authorities have announced that Laguna Palcacocha no longer poses a risk (see p. 159 et seq. of the file and Annex B 35-38). In the year of acquisition 2014, there was therefore at most a certain tendency to cause damage. According to the plaintiff's submission, it was only in the subsequent period that the water level increased due to the glacier melting to such an extent that it now posed a danger to his property.

Finally, the BGH the affected owners in the described above In the *"Hammerschmiede"* case, the court also did not consider that the municipality was obliged to tolerate all immissions, but only those that remained within the permissible guideline values. In the present case, however, limit and guideline values play no role. There are neither guideline values for climate pollution nor for the feared coarse emissions (GLOF). Furthermore, significant risks to property and life must not be tolerated under any circumstances.

For the (analogously) corresponding reasons, the further decisions cited by the defendant (cf. BGH, judgment of February 12, 1985 - VI ZR 193/83, para. 8-11; BGH, judgment of February 15, 2008 - V ZR 222/06, para. 23) can also be applied to the present case. Furthermore, in the 1985 decision

unlike in the present case, the rockfall that led to the damage to the plaintiff there was caused exclusively by the action of natural forces; it was neither attributable to a manmade change to the defendant's hillside property nor to its economic use. In such cases, established case law denies a negatory claim for removal by the affected neighbor pursuant to Section 1004 BGB: The mere fact that an encroachment emanates from a property does not make the owner of the property a disturber; the owner is only a disturber if the encroachment is at least indirectly attributable to his will.

#### ee)

Nor is it possible to establish that <u>the plaintiff was largely co-responsible</u> with regard to the imminent impairment of his property, which - irrespective of the result of a taking of evidence - would be suitable to completely invalidate his claim.

The objection raised by the defendant of contributory responsibility or contributory causation in accordance with § 254 BGB analogously - since the focus is not on fault in the actual sense, but on contributory causation - must already be examined in the context of the application for a declaratory judgment, provided that the (allegedly) relevant facts already existed at the time of the last factual hearing (see BGH, judgment of 14.06.1988 - VI ZR 279/87, para. 10); this is the case here. In principle, the objection in the case of overwhelming co-responsibility is suitable to void the claim under Section 1004 BGB (BGH, judgment of 26.09.2006 - VI ZR 166/05, para. 21).

The Federal Court of Justice has affirmed or considered joint responsibility of the disturbed owner in cases in which the condition of his property could result in a defensible interference with third-party property, a defensible contribution to the cause originated from the sphere of the affected owner, the affected property was in a defective condition or the disturbance was partly caused by circumstances within the owner's sphere of control. A (predominant) co-responsibility of the owner can generally also result from the fact that he has failed to take precautions to prevent damage and has thus contributed to the impairment (cf.

BGH, judgment of 18.04.1997 - V ZR 28/96, para. 12 ff., 15; BGH, judgment of 13.01.2012 - V ZR 136/11, para. 8; BGH, judgment of 21.10.1994 - V ZR 12/94, para. 13; Grüneberg/Herrler, loc. cit., § 1004, para. 44.).

The fact that the plaintiff purchased the affected property in 2014 and thus at a time when, according to the official announcements, there was no longer any concrete danger from the lagoon, but there was at least an abstract danger of flooding, which he - especially as a mountain guide - must have been aware of, does not justify the objection of a predominant contributory responsibility or contributory causation.

The plaintiff did not contribute to the emergence of the impairment to be feared here (risk of flooding) simply by acquiring the property, which had been in the family since 1984, as part of the anticipated succession (see p. 346 f.). The property and house were exposed to the abstract risk of flooding even without this acquisition. If the acquisition by the plaintiff had not taken place, the defendant on the plaintiff's side would have been faced with its legal predecessors, without a self-endangerment being apparent in this respect. It has not been shown that the plaintiff's parents had to orient their use of the property in 1984 towards a GLOF made possible by man-made climate change and, in particular, that they reasonably had to refrain from constructing the residential building in order to avoid endangering themselves (Section 903 sentence 1 BGB). As mentioned above, the fact that the house plot is approx. 25 kilometers away from the lagoon and surrounded by an urban settlement area must be taken into account. Against this background, it seems unfair to exonerate the defendant as a potential interferer solely because of the transfer of ownership.

### ff)

The defendant's objection of the statute of limitations - which would already render the claim void on its merits - does not apply.

The plaintiff's claim is neither time-barred pursuant to Sections 194 (1), 195, 199 (1) BGB nor pursuant to Section 199 (4) BGB. It has not been established that the plaintiff had knowledge or grossly negligent ignorance of the circumstances giving rise to the claim at the time of the official warning of a GLOF from Laguna Palcacocha in 2009.

had. The new three-year limitation period following the significant rise in the water level of the lagoon in 2016 had not expired at the time the lawsuit was filed, nor had the tenyear limitation period, which is independent of knowledge.

# (1)

There is no statute of limitations pursuant to Sections 195, 199 (1) BGB.

(a)

A claim under Section 1004 (1) BGB expires three years after the claim arises and after knowledge or grossly negligent ignorance of the circumstances giving rise to the claim and the person of the debtor (Section 199 (1) BGB) or, regardless of this knowledge or grossly negligent ignorance, after a maximum period of 10 years (Section 199 (4) BGB).

The claim for removal of the disturbance arises at the point in time at which the impairment of property begins (BGH, judgment of 22.02.2019 - V ZR 136/18, para. 15; BGH, judgment of 12.12.2003 - V ZR 98/03, para. 12; BGH, judgment of 01.02.1994 - VI ZR 229/92, para. 21; Erman/Ebbing, loc. cit., § 1004, para. 175; Grüneberg/Herrler, loc. cit., § 1004, para. 45). In the case of repeated similar acts, a new claim arises with each new impairment, which is independently time-barred (see BGH, judgment of June 22, 1990 - V ZR 3/89, para. 24; Grüneberg/Herrler, loc. cit., § 1004, para. 45).

# (b)

The limitation period did not begin to run in 2009, as the existence of the requirements of Sections 195 and 199 (1) BGB had not been sufficiently demonstrated at this time.

According to the plaintiff's submission, the impairment - the imminent risk of flooding - is based on the continuous emissions (also) of the defendant or its subsidiaries, i.e. on an active action. The imminent danger of a flood wave from of the Laguna Palcacocha and of a imminent flood wave. According to the plaintiff, the impairment of property rights to his house had existed since 2009, or at least he had been aware of it since that time in view of the official warnings. The defendant expressly adopted the corresponding submission as its own (cf. pp. 183 et seq., 401 et seq.).

The transfer of ownership of the property in dispute to the plaintiff and his wife in 2014 did not prevent any expiry of the limitation period. This is because the change of ownership of the disturbed property does not start a new limitation period (BGH, judgment of 22.06.1990 - V ZR 3/89, para. 24; Grüneberg/Herrler, loc. cit., Section 1004, para. 45).

However, the Senate assumes that the plaintiff and his legal predecessors were not aware of all other circumstances giving rise to the claim at the time or should have been aware of them without gross negligence (Section 199 (1) no. 2 BGB). In the absence of corresponding evidence, it cannot be assumed that they knew that the defendant had contributed or was contributing to the global warming that the plaintiff considered to be the cause of the risk of GLOF. The plaintiff and his legal predecessors did not and do not live in Europe, but in Peru. It can therefore not be assumed that they were aware of the major emitters in Germany or Europe without further targeted research. There is also no evidence that they were already aware of the scientific connections underlying the asserted claim at the time, which are also largely disputed, even if they were aware of the impending impairment of their property from 2009 onwards and, in any case, of the rough connections with regard to the anthropogenic contribution to climate change.

In the circumstances described above, grossly negligent ignorance within the meaning of Section 199 (1) No. 2 BGB must also be ruled out. Grossly negligent ignorance within the meaning of this provision is assumed if the creditor has violated the due care required in traffic to an unusually gross degree and has not made obvious considerations or has not taken into account what should have been obvious to everyone. This is the case if the injured party does not have the knowledge required to pursue his claim only because he has closed his eyes to an obvious possibility of knowledge that is readily available to him and does not involve any particular costs or significant effort (BGH, judgment of 10.11.2009 - VIZR 247/08, para. 7;

Grüneberg/Ellenberger, loc. cit., § 199, para. 39). There is no evidence of this in the case in dispute.

### (C)

In any case, a limitation period possibly running from 2009, which would have led to the limitation period expiring at the end of 2012 pursuant to Section 199 (1) BGB, would not cause the plaintiff's disputed claim to lapse. This is because a new limitation period began to run from February 2016 as a result of the defendant's further, subsequent emissions and - according to the plaintiff's submission - the renewed onset of an imminent impairment of property.

It is undisputed that the water volume of the lagoon peaked at 17.3 million m<sup>3</sup> in 2009. In the following years, the volume was reduced to 12 million m<sup>3</sup>; the state of emergency for the lake (which was extended several times) was no longer extended after November 1, 2012 (cf. p. 161; 681 of the file; Annex K 8

/Emergency Ordinance of 28.08.2012). According to the authorities, the risk of a glacial lake outburst flood therefore seemed to have been averted. It was only in the second half of 2015 and in 2016 that the volume of water rose extremely again, indisputably up to 17.4 million m<sup>3</sup> in February 2016. According to general physical laws, the risk of a GLOF is likely to have increased considerably with the rise in water.

If the probability of a property impairment increases significantly after it had previously fallen considerably - as in this case - and this low level was maintained for years, the Senate is of the opinion that the limitation period for a claim for removal under Section 1004 (1) BGB begins to run anew. In the case law of the highest courts, it is recognized that new claims are established in the event of repeated disturbances (BGH, judgment of 22.02.2019 - V ZR 136/18, para. 15; BGH, decision of 16.06.2011 - V ZA 1/11, para. 7; BGH, judgment of 08.05.2015 - V ZR 178/14, para. 7-9). This must also apply here if the probability of a GLOF and thus also of flooding of the plaintiff's property initially decreases considerably due to a reduction in the water volume of the lagoon, but then drastically increases again.

(2)

The <u>ten-year limitation period under Section 199 (4) BGB</u>, which is independent of <u>knowledge</u>, had also not expired when the action was brought.

The action with its original request for a declaratory judgment was served on the defendant on December 18, 2015 (cf. p. 62 of the appendix); the extensions to the action were served in July and November 2016. However, it cannot be established that the claim asserted by the plaintiff pursuant to Section 1004 (1) sentence 2 BGB had already arisen in December 2005 or in July/November 2006.

The defendant presented this for the first time in the appeal instance (pp. 2489 et seq.). It makes a linear-proportional extrapolation on the basis of lake levels and lake volumes determined and transmitted at certain points in time and claims on this basis that the volume of 7 million m<sup>3</sup> considered safe by the plaintiff was exceeded in mid-2005. It relies on alleged submissions by the plaintiff in its statement of claim, which were, however, not made. The plaintiff itself makes this explicitly clear once again in its statement of 14.02.2022 (p. 2556 of the file): "... *the defendant's extrapolation is speculation, ...*". Nevertheless, the defendant does not provide any evidence for its representation.

The new submission of the defendant, which is therefore disputed, is not admissible pursuant to Section 531 (2) ZPO. The exceptions listed in this provision do not apply. In particular, the new means of attack is not admissible pursuant to Section 531 (2) sentence 1 no. 1 ZPO. According to Section 531 (2) sentence 1 no. 1 ZPO, new means of attack and defense are to be admitted if, among other things, they relate to an aspect that was deemed irrelevant by the court of first instance. According to supreme court case law, this must be limited to the extent that the (objectively incorrect) legal opinion of the court must have influenced the party's factual submission at first instance and must therefore have (partly) caused the party's arguments to be transferred to the appeal proceedings. This is particularly the case if the court of first instance would have been obliged to make a reference pursuant to Section 139 (2) ZPO if its legal opinion had been correct, which the court of appeal must then - if still necessary - make up for, or if the party was prevented from doing so by the trial management of the court of first instance or its otherwise recognizable legal assessment of the dispute.

to (further) present certain aspects (BGH, judgment of February 19, 2004 - III ZR 147/03, para. 19; BGH, judgment of January 27, 2010 - XII ZR 148/07,

para. 22 et seq.). This is not the case here. The defendant, which has the burden of presentation and proof in this respect, has already raised the plea of limitation in its statement of defense and could have provided more details on the 10-year limitation period, which is independent of knowledge, at this point in time.

Furthermore, the ten-year period, which is independent of knowledge, also began to run anew with the renewed significant increase in the volume of lake water in 2015/2016. Reference is made to the above explanations.

d)

However, the plaintiff, who has the burden of presentation and proof, has not succeeded in proving a <u>future, imminent impairment of his property in the sense of the</u> § Section 1004 (1) sentence 2 BGB.

aa)

A certain probability and a certain temporal proximity of the infringement to be feared must coincide in order to assume a <u>risk of first infringement within the meaning of Section</u> <u>1004 (1) sentence 2 BGB.</u>

Nothing can be inferred from the wording of the law as to the standards according to which a first serious threat of impairment of the plaintiff's property below the glacier lagoon due to flooding or a mudslide is to be determined or which conditions must be met in order to be able to assume such a danger to his property within the meaning of Section 1004 para. 1 sentence 2 BGB.

The Federal Court of Justice affirms a risk of first infringement if there is a serious concern of a future, imminent infringement or the impending act of infringement is so tangible in fact that a reliable assessment is possible from a legal point of view (see BGH, judgment of 25.02.1992 - X ZR 41/90, para. 36; similarly BGH, judgment of 18.06.2014 - I ZR 242/12, para. 35, in each case to threatening

acts of infringement in competition between two competitors). With regard to the requirements for a preventive injunctive relief claim against a threat of property damage from a neighboring property, the Federal Court of Justice has stated that the connecting factor for the neighbor's right of defense is not the potential danger emanating from the other property, even if perhaps only in exceptional circumstances, but the actual or at least concretely imminent impairment of his property in the individual case and that the claim therefore only arises at the moment when a concrete source of danger has objectively formed on the neighboring property that makes the emission possible, on the basis of which intervention is required (cf. BGH, judgment of 18.09.2009 - V ZR 75/08, para. 12; BGH, judgment of 30.05.2003 - V ZR 37/02, para. 14). According to these principles, a potential or abstract or theoretical danger is not sufficient for a defensive claim under Section 1004 (1) sentence 2 BGB, but a sufficiently concrete danger is required (see also Prof. Dr. Gsell, opinion of 28.01.2025, p. 7, submitted by the plaintiff as Annex BK 45).

In literature, the moment of time is used with terms such as "as soon as", "in the foreseeable future",

*"to be seriously and tangibly feared"* or "*imminent*". According to this, a relevant initial danger should only be assumed if the occurrence of the feared disturbance is to be expected soon or in the foreseeable future or is imminent (Staudinger/Thole, loc. cit., Section 1004, para. 465; BeckOGK/Spohnheimer, loc. cit., Section 1004, para. 269, 271; BeckOK BGB/Fritzsche,

loc. cit., § 1004, para. 96).

How these terms are to be defined depends on the circumstances of the individual case. The higher the legal interests threatened, the lower the requirements to be placed on the degree of probability to be demanded (see also Prof. Dr. Gsell, loc. cit.). The greater the danger and the probability of its realization, the more likely it is that security measures are reasonable (BGH, judgment of 05.07.2019 - V ZR 96/18, para. 14; BGH, judgment of 31.10.2006 - VI ZR 223/05, para. 11).

bb)

In accordance with these principles, the Senate considers 30 years to be the maximum <u>time</u> limit for the <u>occurrence of</u> a GLOF affecting the plaintiff's property in the context of the overall assessment of all the circumstances of the present case.

Insofar as the Federal Court of Justice bases its assessment of heavy rainfall and flooding hazards and their prevention or precautionary measures on a 100-year event (see BGH, judgment of June 5, 2008 - III ZR 137/07, para. 10; BGH, judgment of April 22, 2004 - III ZR 108/03, para. 11), this cannot be applied to the present case. The relevant decisions dealt with a flood protection-related liability of the public authorities; in the present case, on the other hand, liability between two private legal entities is at issue. While the flood protection-related official duties are abstractly aimed at averting danger and can only be asserted by individual rights holders by way of third-party protection, Section 1004 (1) BGB is concerned from the outset with the claim for defense against existing or (re-)impending concrete impairments, i.e. acute existing or expected encroachments by third parties on the legal or actual power of an owner. This must be taken into account in that significantly higher requirements must be placed on the determination of a (concretely imminent) impairment than on the assumption of an abstract official duty to avert danger on the part of a municipality or authority. This applies all the more as, in addition to the wording of Section 1004 (1) sentence 2 BGB, according to the prevailing opinion and case law, an impairment that is imminent for the first time is also sufficient to justify a claim for injunctive relief. This is also the issue here. Therefore, strict requirements must be placed on the risk of first occurrence in order not to allow the claim for injunctive relief to get too out of hand beyond the (too narrow) wording of Section 1004 (1) sentence 2 BGB (see also BeckOGK/Spohnheimer, loc. cit, § 1004, para. 271).

Insofar as the plaintiff believes that public law, in the form of § 76 Para. 2 WHG, provides an indication of when intervention is required, the Senate does not agree. § Section 76 para. 2 no. 1 WHG stipulates that the areas in which a flood event is statistically to be expected once every 100 years are to be designated as floodplains by the state government. According to the legal definition in § 76 Para. 1

S. 1 WHG, floodplains are areas between surface waters and dykes or high banks and other areas that are flooded or crossed by floodwaters of a surface water body or that are used for flood protection.

flood relief or retention. Areas in which a flood event is statistically expected to occur once every hundred years are therefore to be designated as floodplains by virtue of federal law (Czychowski/Reinhardt, 13th ed. 2023, WHG, Section 76 marginal no. 22). The Water Resources Act thus uses a blanket standard without any consideration of individual cases; it does not depend on any existing or seriously impending impairment of individual interests. It is not possible to apply the requirements set out in Section 76 (2) WHG for the designation of a floodplain - a return period of 100 years for a flood - to the injunctive relief under Section 1004 (1) sentence 2 BGB due to these different standards.

When specifying the moment in time, the Senate also took into account the fact that future development at the lagoon cannot be reliably estimated for a period longer than 30 years. A look back into the past shows that Laguna Palcacocha has undergone considerable changes over the last hundred years - at intervals of a few decades - including changes in the geometry and location of the glacial lake and the installation of safety facilities. In the 1920s, it was impossible to foresee how the lagoon would develop over the coming decades. Neither the tidal wave of December 13, 1941, the cause of which is discussed as erosion processes on the terminal moraine wall and/or ice break-off (cf. p. 101 SVG I), nor the resulting changes to the geometry and position of the glacial lake (cf. p. 106 SVG I) could have been foreseen. The same applies to the earthquake of 31.05.1970, during which the existing safety structures

- an artificial dam built in the 1950s and a drainage channel - were damaged (p. 108 SVG I). Around 30 years later - in 2003 - the lagoon underwent further significant changes. The detachment of glacial ice and the sliding of moraine material from the left rear lateral moraine wall triggered a surge wave, which led to an overflow of the dams and, in some areas, of the ground moraine wall, as a result of which the glacial lake became much larger (p. 110 ff. SVG I). Irrespective of the question of whether these events were favored by climate change or were triggered independently by natural events, they show that the question of whether there are concrete indications of a tangible danger with regard to the legal interests of the plaintiff c an only be answered with the necessary certainty for a limited period of time. There are still

There are many factors that could influence the future development of Laguna Palcacocha. These include the economic development of Peru as a whole and the Ancash region in particular, the population development in Huaraz, on which the extent to which the lake is used as a water reservoir and the design of the associated technical facilities (artificially raising the water level using dams, artificial drainage using siphons, etc.) are likely to depend. This is likely to depend on the decisions made by the authorities with regard to the tolerable risk of flooding for the city and its inhabitants, any changes in the course of the mountain streams and rivers Río Paria/Río Cojup, Río Quilcay and Río Santa, etc. In view of this multitude of factors, the Senate believes that a reasonably reliable forecast can only be made for the next three decades at best.

On the other hand, the Senate also took into account the severity of the impending damage to the plaintiff in this case as part of the required individual assessment. In the event of a glacial lake outburst, the plaintiff's property and that of the other residents or users of his property in Huaraz could be destroyed. In extreme cases, there is also a risk to life and limb. In this respect, a quasi-negative defense claim analogous to § 1004 BGB could exist (see BGH, judgment of 18.03.1959 - IV ZR 182/58, para. 24; BGH, judgment of 27.09.1996 - V ZR 335/95, para. 7 ff.; Erman/Ebbing, loc. cit., § 1004, para. 9 f.). Irrespective of the question of whether a danger to life and limb has been asserted by the plaintiff here with the necessary substance at all, the extent of the conceivable damage in any case speaks in favor of setting the period of occurrence of the danger to be feared at no less than 30 years.

#### cc)

In the period under consideration defined in this way, a concrete threat of damage to the plaintiff's property due to flooding from Laguna Palcacocha and/or a mudslide as a result of an increase in the volume of water in the lake, the release of an ice avalanche, a glacier collapse, a rock slide, a rockslide or a combination of these circumstances is not to be expected with the probability required under Section 1004 (1) sentence 2 BGB.

#### (1)

The Senate extended the taking of evidence to the question of the flooding of the plaintiff's property in the event of a flood wave emanating from Laguna Palcacocha and also took into account a possible flood risk due to the detachment of an ice avalanche, a glacier break-off, a rock slide or a rockfall into the lake and a resulting break in the terminal moraine and/or the two artificial dams. However, he did not include other glacial lakes besides Laguna Palcacocha in his risk assessment.

### (a)

The Senate took evidence on the plaintiff's assertion that a flood wave would reach his property after a glacial lake outburst of Laguna Palcacocha and "*in all likelihood also* flood *the plaintiff's house*", although this fact was listed as undisputed in the facts of the contested judgment (cf. p. 427 et seq. of the file) and an application for rectification by the defendant was rejected (see p. 457 et seq. of the file).

The Senate does not consider itself bound by the corresponding finding of the Regional Court because the specific consequences of a glacial lake outburst remain unclear due to the restrictive wording "*in all probability*", but the Senate has to clarify precisely this point.

Moreover, the Senate treated the defendant's denial of flooding of the plaintiff's property in the appeal instance (cf. p. 556 et seq. of the file) as a new means of defense, which is nevertheless to be admitted in accordance with Section 531 (2) sentence 1 no. 1 and 3 ZPO. In the opinion of the Senate, the defendant's submission in its statement of defense on p. 34 et seq. (p. 160 et seq. of the file) is already to be understood to mean that there is no concern whatsoever that the plaintiff's property will be impaired in the form of flooding due to a glacial lake outburst of Laguna Palcacocha. This is explained in detail there. However, a scenario in which a GLOF could occur but the flood wave is not large enough to reach the plaintiff's property is not discussed separately. However, this fact does not alter the fact that the statements in the statement of defense, if interpreted reasonably, are to be understood as follows that the defendant wishes to deny a threat to the plaintiff's property under all possible circumstances. The comprehensive denial of an imminent impairment of property is therefore already inherent in the essence of the statement of defense. If the court of first instance understood this differently, the court should have made a reference or clarifying inquiry at this point within the meaning of Section 139 (1) ZPO and at the same time provided an opportunity for clarification. This did not happen. It is possible that the court of first instance - based on its legal view of the case - may have considered a clarifying addition to the submission on this point to be irrelevant or unnecessary.

#### (b)

Also admissible was the plaintiff's submission, substantiated in the second instance, that in addition to the increase in the volume of water in Laguna Palcacocha and a resulting overflow of the terminal moraine and the two artificial dams, there may also be a serious threat of flooding caused by the detachment of an ice avalanche, a glacier break-off, a rock slide or a rockfall into the lake and a resulting breach of the terminal moraine and/or the two artificial dams. These scenarios have also been taken into consideration and presented by the plaintiff to justify an imminent impairment of his property on a reasonable interpretation of his statement of claim (see e.g. page 7 of the statement of claim, second paragraph under point 3.2: "...also caused by glacier melt, falling ice and rock layers..."). Here, too, the court should have made a reference or clarifying inquiry within the meaning of Section 139 (1) ZPO and at the same time given an opportunity for clarification.

#### (C)

Insofar as the plaintiff pointed out two other glacial lakes next to Laguna Palcacocha after the on-site visit and accused the court experts of failing to include the Quilcay catchment area as a whole in the risk assessment (p. 3329 et seq, 3363 of the present document), this new means of attack is not admissible pursuant to Section 531 (2) ZPO; alternatively, it is to be rejected as belated (Sections 525, 282, 296 (2) ZPO).

## (aa)

There are no reasons to exceptionally admit the plaintiff's new and disputed submissions pursuant to Section 531 (2) sentence 1 nos. 1 to 3 ZPO.

In the first instance, the plaintiff only argued about the dangers to his property and the city of Huaraz posed by a glacial lake outburst of the Palcacocha lagoon; there was no mention of other glacial lakes. For the first time in the appeal instance - in a statement dated 30.01.2024 (pp. 3329 et seq., 3363 of the file) - he argues that a danger to his property emanates not only from the Palcacocha lagoon, but also cumulatively from the two lagoons Cuchillacocha and Tullpacocha located in the Quilcay catchment area. Insofar as he refers in this context to the publication he submitted by Frey et al. (2018, written in English/Anl. BK 10), this appendix is also - without further concrete explanations on a cumulative hazard potential

- was not submitted to the file until the statement of February 7, 2019 (p. 1643 et seq. of the file) and thus in the appeal instance. For its part, the defendant denies that the three lagoons, either individually or in combination, pose a concrete danger to the plaintiff's property (p. 3468 of the file).

In particular, the plaintiff's new means of attack is not admissible pursuant to Section 531 (2) sentence 1 no. 1 ZPO. It does not relate to any aspect that was clearly overlooked or deemed irrelevant by the court of first instance.

The requirement to grant the right to be heard obliges the court of appeal to admit new submissions if inadequate conduct of the proceedings or a breach of the court's duty to provide information contributed to the absence of submissions or requests for evidence in the first instance (BGH, decision of 11.04.2018 - VII ZR 177/17, para. 7; BGH, judgment of 19.02.2004 - III ZR 147/03, para.

19; BGH, judgment of 27.01.2010 - XII ZR 148/07, para. 24).

This is not apparent. In this respect, the Regional Court did not violate its duty to provide information pursuant to Section 139 (2) ZPO. It was not required to point out to the plaintiff, who was familiar with the area as a mountain guide, that his presentation on the local

to extend or supplement the risk situation to the other two lagoons. The plaintiff was also not prevented by the trial management of the court of first instance or its otherwise recognizable legal assessment of the relationship in dispute from (further) presenting the point of view now cited. It is not apparent that the (in the Senate's view erroneous) legal opinion of the Regional Court influenced the plaintiff's submissions in this regard at first instance in any way.

#### (bb)

Notwithstanding these statements, the plaintiff's submission on the cumulative risk situation must in any case be rejected as late pursuant to Sections 525, 282 (1), 296 (2) ZPO.

The plaintiff (who is familiar with the area) should have made specific submissions on the two lagoons Cuchillacocha and Tullpacocha and on the alleged danger to his property from these lakes as early as the statement of grounds of appeal, but at least after receipt of the order to take evidence at the end of November 2017 and necessarily before the site inspection was carried out in May 2022 in preparation for the written expert report. The defendant could then have made inquiries and commented on this submission. If necessary, the mandate of the court experts could then have been extended with a supplementary order to take evidence; the further submissions could then have been considered and examined by the experts during the on-site visit in May 2022.

Taking into account the submission that was only made in January 2024 and thus more than a year after the submission of the written initial expert opinion would have led to a considerable delay in the proceedings. In order to determine a delay in the legal dispute, it is only important whether the process would take longer if the late submission were admitted than if it were rejected. On the other hand, it is irrelevant whether the legal dispute would have lasted just as long if the submission had been made on time (*absolute concept of delay*, see BGH, judgment of December 2, 1982 - VII ZR 71/82, para. 9 et seq.). If the Senate had still admitted the submissions disputed by the defendant, a renewed time-consuming and - as the parties are aware - considerably difficult hearing would have been necessary.

If the experts had had to carry out a site visit in Peru in order to prepare a further expert opinion, the conclusion of the proceedings would have been postponed for years.

The plaintiff's late submission is also based on gross negligence within the meaning of Section 296 (2) ZPO. Each party to the proceedings is required to present or at least announce all means of attack and defense (including those to be considered only in the alternative) as soon as possible. Unlike the court, the plaintiff, as a mountain guide, knew and knows the named lagoons and their possibly critical location for his property exactly. It would therefore have been possible for him to make the submission, which was not made until January 2024, at the latest with his grounds of appeal in January 2017.

# (2)

It is irrelevant whether the fact that a glacial lake outburst flood can occur even without the man-made CO2-induced climate change alleged by the plaintiff should be taken into account when answering the question of whether the plaintiff's legal interests are exposed to a concrete threat of impairment. For example, the detachment of rock/ice blocks above the lagoon or the rupture of the ground moraine or a dam could also be triggered by an earthquake. The probability of damage independent of climate change could therefore be deducted from the overall probability; however, this would make it more difficult to determine the probability of damage independent of anthropogenic CO2induced climate change induced climate change.

Ultimately, this is irrelevant, as the plaintiff cannot prevail with his claim even if the probability of damage from a glacial lake outburst flood is considered as a whole.

# (3)

The plaintiff was unable to prove that Laguna Palcacocha poses a serious threat to his property within the meaning of Section 1004 (1) sentence 2 BGB.

According to the supplementary report by the experts Prof. Katzenbach and Prof. Hübl dated December 20, 2024, <u>the probability</u> of the plaintiff's property below Laguna Palcacocha being endangered in the next 30 years by flooding and/or a mudslide due to an increase in the volume of water in the lake, the detachment of an ice avalanche, a glacier break-off, a rock slide or a rockfall or a combination of these circumstances is significantly less than 3%. At the hearing on 17.03.2025, the experts specified this to the effect that the probability was only 1 %. According to the expert assessment, this risk is very low, especially when taking into account a guideline for the assessment of natural hazards applicable in Switzerland.

In this situation, the Senate is convinced that a risk of first occurrence cannot be affirmed, even taking into account the weight of the legal interests threatened according to the plaintiff's submission, and even if the climate factor of 2 or 4, which the plaintiff considers necessary, is applied to the percentage probability determined.

### (aa)

(a)

In their expert report dated July 31, 2023 and the supplementary report dated December 20, 2024, the court-appointed experts carried out a site-specific analysis of the hazard potential.

All investigations into potential hazards due to glacier collapse or the detachment of ice avalanches are based on the actual local conditions and on the risk assessment of the locally competent and local authorities INAIGEM (Instituto Nacional de Investigación en Glaciares y Ecosistemas de Montaña, the National Institute for Glacier and Mountain Ecosystem Research) and ANA (Autoridad Nacional del Agua, the National Water Authority), see p. 161 SVG I, p. 71 SVG II). The experts then examined 22 potential glacial erratics (blocks) identified by INAIGEM , whose volumes range between 34,258.28 m<sup>3</sup> (block 8) and

101

765,101.56 m<sup>3</sup> (block 15). In doing so, they adopted the five scenarios created by Villafane Gómez (2020a & 2020b) - an INAIGEM employee - with impact volumes between 0.47 million m<sup>3</sup> and 1.88 million m<sup>3</sup>, in which a large potential block or several potential blocks detach simultaneously (p. 161 ff. SVG I, p. 72 SVG II). They also examined the potential glacial erratics currently identified by ANA and presented at the official meeting on 27.05.2022 in Huaraz. The seven blocks are between 225,810 m<sup>3</sup> and 1,169,870 m<sup>3</sup> in size; blocks 5, 6 and 7, which are close to each other, have a combined volume of around 2.5 million m<sup>3</sup> (p. 163 SVG I, p. 74 SVG II).

According to the experts' investigations, potential rock slides do not pose a risk to the plaintiff's property. Although such landslides have occurred repeatedly, particularly on the left-hand side moraine wall (as seen from the direction of the valley), only a single event on March 19, 2003 with a landslide volume of 83,800 m<sup>3</sup> is documented. The calculations show that, with the exception of the steep slope in the landslide basin in the left lateral moraine wall (Figure 102, p. 167 SVG I), all slope areas of both lateral moraine walls are stable. The steep slope in the landslide basin could lead to a landslide event with a maximum landslide mass volume of 100,000 m<sup>3</sup>. However, such a landslide volume would not lead to an overflow of the artificial dams or the ground moraine wall if the lake water level did not rise above 4,560 m above sea level (p. 165 ff. SVG I, p. 76 SVG II). At the hearing, the experts clarified that this also applies to a water level of 4,563 m (Prot. of 17.03.2025, p. 11).

The experts also did not include a potential rock/mountainslide in their calculations; such an event was not considered as a potential trigger event. They justified this comprehensibly by stating that the hazard assessments of the Peruvian authorities ANA and INAIGEM did not contain any indications of a hazard from a rockfall or landslide; such events had not occurred in the last 83 years. This can be seen from the bathymetry of the lake. In particular, where the glacier had retreated and bedrock was present, no rockfalls had demonstrably occurred; there were also no indications of initial instability problems (Prot. of 17.03.2025, p. 5 f., p. 12, Chart 105). Insofar as an INAIGEM report from 2018 mentions a risk of rockfall, this report does not deal with Laguna Palcacocha, but with Laguna Rajucolta, which is characterized by a different lithology. However, the lithology is the decisive factor for rockfalls. Laguna Palcacocha is embedded in batholith, which is not prone to rockfalls. It is a magmatic deep rock that is very complex and competent and has a high inherent stability. The less stable rock and rock types found at Laguna Rajucolta only occur on the lateral moraine walls of Laguna Palcacocha; there they could at best lead to the smaller loose rock slides described above (cf. Prot. of 17.03.2025, p. 5). All publications including those submitted by the plaintiff himself - also assumed a calculated density of a potential avalanche of 1,000 kg/m<sup>3</sup>. This corresponds to the density of an ice avalanche with impurities, while rock has a significantly higher density (factor approx. 1.5). The approach of a density of 1,000 kg/m<sup>3</sup> is also considered appropriate by the experts. Rockfalls with a volume of around 2 million m<sup>3</sup> are therefore covered by the investigations for glacier avalanches and ice avalanches with a volume of up to 3 million  $m^3$  when using an average density of 1,500 kg/m<sup>3</sup> for a rock-ice avalanche sliding down into the lagoon, even if there is no exact comparability due to the differences in flow behavior, collapse angle, impact velocity, etc. (p. 136 ff. SVG II, Prot. of 17.03.2025, p. 12).

#### (bb)

Based on the potential trigger events identified in this way, the experts first examined whether there was at least a 50% probability that the plaintiff's property would be impaired in the next 30 years (initial expert opinion). Detached from this, in response to the Senate's supplementary evidentiary question of April 16, 2024 (p. 3487 et seq. of the file), they determined the probability of the risk of the plaintiff's property being affected by a flood or mudslide emanating from Laguna Palcacocha in the next 30 years (supplementary expert opinion).

As a first step, they created a high-resolution three-dimensional terrain model using active and passive remote sensing methods in the site visits in May 2022 and a

drone-based survey of the area around Laguna Palcacocha (see p. 173 ff. SVG I). They then determined the effects of glacier break-offs/ice avalanches - regardless of the probability of such a break-off - using two different, independent calculations, namely the Abaqus CAE program system and the Avaframe com1DFA simulation tool (p. 189 ff. SVG I). The density of a possible avalanche was set by the experts at 1,000 kg/m<sup>3</sup> (p. 193, 220 SVG I). Their modeling and calculation technique had been confirmed as accurate by the validation calculations of the events of 19.03.2003 and 05.02.2019 or 05.02.2019 and 17.01.2021 (p. 194 ff. SVG I regarding Abaqus, p. 220 regarding Avaframe). Using Block 7, identified by ANA as a potential hazard with a volume of around 1.17 million m<sup>3</sup>, and Blocks 5, 6 and 7 with a volume of 2.52 million m<sup>3</sup>, numerical simulations of the glacier collapse were carried out as examples, the latter in the sense of an extreme value analysis. All six points of the process chain from the GAPHAZ publication (Allen et al. (2017)) - impulse for wave generation, wave propagation, run-up height of the waves at a barrier and overflow of the barrier, dam erosion and emptying of the lake, flood propagation and impulse of the flood when it hits buildings - were processed in detail, starting with the calculation of the avalanche as a result of the glacier break-off, calculation of the wave propagation in the Laguna Palcacocha, the run-up height of the waves and the overflow of the ground moraine wall and the two artificial dams as well as the flood propagation in the Cojup valley in the direction of the plaintiff's house property, which, however, was not reached by the flood wave (p. 201 et seq. SVG I, p. 135 f. SVG II, schematic representation of the process chain on p. 135 SVG II).

The expertsareintheirsubsequentprobabilistic considerations in the (first) expert opinion, based on the so-called "censoredGumbel distribution" (p. 218 SVG I), the experts assumed that the term used in theSenate's decisions on evidence

*"sufficient probability"* presupposes a probability of more than 50% (p. 212 SVG I). Based on a 30-year observation period, this results in a relevant recurrence interval of an event occurring of 45 years (p. 217 SVG I).

To determine the height of the surge wave in the relevant recurrence interval, they used an observation period of 20 years with four documented events (19.03.2003, 31.05.2017, 05.02.2019, 17.01.2021) as a so-called random sample (p. 217 SVG I). In the supplementary report, a fifth event - that of 23.01.2024 - was added to the explanations (p. 69 ff., 102 ff. SVG II). For the 45-year event, a surge wave height of 8 m to 10 m, measured at the southern shoreline in front of the two artificial dams, was used for the further calculations (p. 218, 220 SVG I). Based on this surge wave height, the experts calculated an impact volume of 300,000 m<sup>3</sup> to 600,000 m<sup>3</sup> for the 45-year event. The wave height over the dam crest was 5 m to 8 m, the related overflow volume over the dam crest 700 m<sup>3</sup>/m to 1,100 m<sup>3</sup>/m, the total overflow volume 140,000 m<sup>3</sup> to 220,000 m<sup>3</sup> (p. 230 SVG I). This resulted in hazard scenarios A, B and C with impact volumes of 300,000 m<sup>3</sup>,

450,000 m<sup>3</sup> and 600,000 m<sup>3</sup> were formed. These represented the range from the minimum expected event (Scenario A) to the maximum expected event (Scenario C) with a 45-year recurrence interval and a sufficient probability of at least 50 % (p. 231 SVG I). For all hazard scenarios as well as for the INAIGEM scenarios and the scenarios according to Somos-Valenzuela et al. (2016), the experts created discharge hydrographs and converted these into dimensionless unit hydrographs (p. 233 ff. SVG I). In addition, the overflow volume and peak discharge were determined (p. 247 SVG I) and a hydraulic simulation of the potential flood wave was created for scenarios A, B and C, taking into account topography, hydrology and roughness, whereby two hydrographs with different values for "*time to peak*" and peak rate factor were selected to cover the possible range of scenarios (referred to as A1, A2, B1, B2, C1 and C2, p. 245 ff. SVG I). Based on these parameters, the experts came to the conclusion that the plaintiff's property would not be affected by the flood wave in any of the hazard scenarios examined. Thus, on the basis of science-based methods, it was proven that there was at least a 50% probability that the plaintiff's property would not be affected in the next 30 years (p. 253 SVG I).

Moreover, using the same approach but without specifying a probability measure, the experts calculated the minimum size of an event that would lead to an impairment of the plaintiff's property (so-called <u>hazard scenario X</u>). This event as a result of a glacier collapse would have to be a

Inflow volume of at least 1.4 million m<sup>3</sup> or 1.4 million tons (density of glacier debris = 1,000 kg/m<sup>3</sup>) in the direction of the longitudinal axis of Laguna Palcacocha. An overflow volume of at least 700,000 m<sup>3</sup> with a peak discharge of at least 30,000 m<sup>3</sup>/s would have to be created (cf. Prot. of 17.03.2025, p. 7, Charts 46 ff.). In this hazard scenario, the flood wave would break out of the riverbed of the Río Paria about 1.2 km upstream of the plaintiff's property and partially flow over into the riverbed of the Río Quilcay. From there, the plaintiff's property would be affected by the flood wave from the south, i.e. in the rear area, with a flow height of 0.50 m to 1.00 m and a flow velocity of less than 1 m/s (equivalent to 3.6 km/h). The flood wave would then break out a second time from the riverbed of the Río Paria; this would lead to a discharge via the Interoceánica road with a flow height of around 10 cm in the area of the plaintiff's property (p. 260 ff. SVG I). Such a scenario with an overflow of the ground moraine wall and the two artificial dams with a volume of at least 700,000 m<sup>3</sup> would not occur in the next 30 years - based on a probability of 50% (p. 267 SVG I).

In their supplementary report dated 20.12.2024, the experts made additional calculations taking erosion and sediment transport into account (p. 109 ff. SVG II).

To this end, they carried out extensive parameter studies and comparative calculations with variations in erosion parameters, friction coefficients, density of the flood wave flowing down the valley, bedload transport and the runoff hydrograph approach. They not only considered pure water discharges (1,000 kg/m<sup>3</sup>), but also higher material densities of up to 1,330 kg/m<sup>3</sup>; the latter would correspond to a debris-flow-like solids transport with a volumetric solids concentration of 20

% or a sediment surcharge factor of 1.25 (p. 111 f. SVG II). According to Somos-Valenzuela et al. (2015) and Frey et al. (2018), no erosion is to be assumed on the ground moraine wall, as eroded bedload is not transported significantly further even in the event of a new event. Traces of erosion were only identified in the steep section of the Cojup valley above Huaraz. Erosion was therefore only taken into account from the entrance to the national park (km 10.5) to the gorge section (km 3.5), which has a gradient of >10% (p. 114 SVG II). In the simulation calculation with RAMMS::debrisflow, a block release was partially taken into account - in accordance with the calculations by Frey et al. (2018) (variants F; for the individual variants examined, please refer to the overview in Appendix 1 and the recalculations with different variations of the parameters (Appendix 2-8 SVG II)). However, a block release is fundamentally unsuitable for simulating a possible flood wave at Laguna Palcacocha, as the entire overflow volume would not be released at once; however, the block release assumes this. With the unrealistic assumption of the block release, the risk to the plaintiff's property is therefore significantly overestimated and is therefore on the safe side (p. 115 SVG II). The same applies to the assumption of Frey et al. (2018) - adopted by the experts for some of the scenarios - according to which the starting position of the calculated flow process is on the valley side of the ground moraine wall, at least 600 m south of the shoreline of Laguna Palcacocha. This means that the wave impact on the remaining terminal moraine wall and the associated energy dissipation as well as the braking function of the canyon section are not taken into account (p. 115 SVG II).

Based on their simulations, the experts came to the conclusion that the plaintiff's property - with the exception of variant F4.1 - would only be reached with the extreme assumption of a large erosion depth with a flow height of less than 10 cm (variants F1.2 and F3.1). The investigations with various friction parameters would show that only very lowviscosity mud-like solid transports or a pure water discharge would be able to reach the plaintiff's property (p. 117 SVG II). If, assuming a block release, the density of the fluid flowing down the valley is increased from 1,000 kg/m<sup>3</sup> to 1,100 kg/m<sup>3</sup>, the hazard potential increases significantly; in this case, a maximum flow height at the plaintiff's house of 1 to 2 m is conceivable (variant F4.1). However, variant F4.1 had nothing to do with the "hazard scenario X" discussed in the initial expert opinion. It is purely a parameter study; in view of the selected parameters - starting point of the flood wave on the valley side of the ground moraine wall, block release, borderline value for the density - it is not a realistically possible event (report of 17.03.2025, p. 8, Chart 58). At densities of > 1,200 kg/m<sup>3</sup>, the plaintiff's property would no longer be at risk, as the friction of the debris flow would be too high to reach the city of Huaraz (variant F4.2). If the starting position of the calculated flow process was placed on the upstream side of the ground moraine wall - which would be the case - the city of Huaraz or the plaintiff's property would not be endangered even in the event of extreme events with an overflow volume of 1.8 million m<sup>3</sup>.

is achieved. This does not even take into account the potential increase in discharge density due to any erosion of the ground moraine wall, which would additionally shorten the flow path (cf. variant F5.1). The use of 3-point or 10-point hydrographs instead of the block release in the F variants also leads to a reduction in the reach of the flood wave; in no simulation calculation with a starting position on the upstream side of the ground moraine wall would the plaintiff's property be flooded (p. 119 SVG II).

The experts also carried out a hazard analysis using a combined approach of flow models (variants H and X, Annex 1 SVG II). The RAMMS::debrisflow program system is only suitable to a limited extent for simulating the flow of clean water. In order to simulate a GLOF event as realistically as possible, pure water simulations were therefore carried out with HEC-RAS in the upper valley of the Cojup valley without taking erosion into account, while RAMMS::debrisflow was used in the lower, steep part of the Cojup valley for the channel section from km 10.5 to km 3.5 in order to take into account the potential erosion in the steep section before Huaraz and the absorption of fine sediment downstream of km 10.5 (entrance to the national park). The bedload transport was taken into account for variant X, but not for variant H.

The variation of the parameters in model setup "H" shows that the plaintiff's property is only reached if a fast and low-viscosity mudflow-like solids transport is assumed (variant H2); in this case, there are no relevant differences to the pure water simulation calculated in the initial report as hazard scenario X using HEC-RAS. Even if bed load intake is taken into account and a hydrograph with a peak discharge of 13,100 m<sup>3</sup>/s, a volumetric solids concentration of 20 % and a density of 1.330 kg/m<sup>3</sup> as well as a material that is easier to erode than average and a large possible erosion depth in the simulation calculation (variant X), the flow height at the plaintiff's property would only be a maximum of 10 to 20 cm high; however, even if friction values were applied, which correspond to a significantly faster and thinner debris-flow-like solid transport compared to the assumption of Frey et al. (2018) (p. 120 ff. SVG II).

The experts Prof. Katzenbach and Prof. Hübl come to the following conclusion based on their further simulation studies in the supplementary report The result is that there are ultimately no significant differences in the risk assessment between scenario X described in more detail in the initial report, which assumes a pure water discharge, and the investigations described in the supplementary report, which take erosion and sediment transport into account. There are only certain differences in terms of flow height and flow velocity; in this respect, the initial report should be corrected by the now more precise studies. In the (most critical) scenario X3 presented in Appendix 1 to the supplementary report, it is assumed that water up to 20 cm high and with a flow velocity of 1.5 to 1.7 m/s reaches the plaintiff's house. From an expert's point of view, such a scenario has no influence on the stability of a house and does not endanger the structure of the building (see report of 17.03.2025, p. 8 f.).

#### (CC)

Based on a surge wave of at least 20 m in height calculated for "hazard scenario X" and a recurrence interval for such a surge wave of significantly more than 1,000 years, the experts concluded in summary that there is a probability of less than 3 % that the plaintiff's property will be at risk in the next 30 years due to the detachment of an ice avalanche, a glacier break-off, a rock slide or a rockfall into the Laguna Palcacocha. In their calculation, they used the guidelines also published by the Swiss Federal Office for the Environment in the publication *"Protection against mass movements, enforcement aid for the hazard management of landslides, rockfall and hillslope debris flows"* (hereafter: FOEN Guideline (2016)) used formula. The so-called Gumbel distribution, shown in Figure 31 (p. 132 SVG II), shows that the intersection point surge wave height 20 m/recurrence interval (years) is not 1,000 years, but clearly to the right of this at around 3,000 years. This results in a probability of occurrence for the relevant scenario X of only around 1

% (cf. report of 17.03.2025, p. 9). According to the experts' assessment, the risk to the plaintiff's property should therefore be classified as very low in accordance with the terminology of the FOEN guidelines.

(dd)

The Senate agrees with this comprehensible and convincing expert assessment following its own evaluation. A probability of occurrence of only around one percent does not meet the requirements for a future, first-time threat of impairment within the meaning of Section 1004 (1) sentence 2 BGB.

#### (aaa)

As the experts' approach described above shows, they carefully analyzed the local conditions with all the means at their disposal, taking into account generally accepted knowledge and the state of the art, and evaluated them using a large number of relevant publications and calculation programs. The probability calculation performed is coherent, comprehensively substantiated and easy to understand even for laypersons. The Senate is unable to identify any breaks in reasoning or calculation errors.

Insofar as the plaintiff refers to the fact that neither of the two court experts has sufficient expertise in glacier events (p. 3642 of the file), this cannot be accepted.

Prof. Dr.-Ing. Rolf Katzenbach is a world-renowned expert in geotechnical engineering. For 25 years (1993-2018), he headed the Institute and Research Institute for Geotechnics at the Technical University of Darmstadt. As part of his extensive, practiceoriented basic research, he has scientifically investigated the dynamics of rock slides and rock avalanches and their propagation within the framework of research projects of the German Research Foundation (DFG), among others. Prof. Katzenbach is responsible for analyzing the causes and preventing major landslides on numerous critical steep slopes and embankments. One example of this is the research into the causes of the large landslides in Nachterstedt in Saxony-Anhalt (volume 4.5 million m<sup>3</sup>) and on the D8 highway in the Czech Republic (mass> 1 million t). Prof. Katzenbach is responsible for the development and stability of the slope stabilization on the 160 m high Moselle bridge and for the safety of numerous slope stabilization measures to stabilize tunnels, viaducts and steep rock slopes on the Hanover-Würzburg ICE line. The stability of rock and unconsolidated rock is therefore one of his areas of expertise, as is the object-oriented modeling of geotechnical structures. Prof. Katzenbach is a member of the International Consortium on Landslides (ICL), the board of the DFI Europe (Deep Foundation Institute), the DIN Standards Committee (NABau), the German Reservoir Committee, the Swiss Society for Earthquake Engineering, an official expert for the Saxon Mining Authority and has been working as a neutral expert and publicly appointed and sworn expert for ground and rock engineering for national and international jurisdictions since 1987.

Prof. Dipl.-Ing. Dr. Johannes Hübl is an internationally recognized expert in the field of natural hazards. He headed the Institute for Alpine Natural Hazards at the University of Natural Resources and Life Sciences, Vienna (BOKU) from 2001 to 2021, and subsequently the Department (= Faculty) of Civil Engineering and Natural Hazards at BOKU until 2025. Prof. Hübl's research fields cover a wide range and focus on hazard analyses of torrential flood waves, rheology of debris flows, monitoring and warning of natural hazard processes, optimization of technical protection measures, event documentation and forensic engineering. He has been involved in numerous international and national research projects. For example, Prof. Hübl was a consultant to the Asian Development Bank as a Mountain Watershed Management Expert for the restoration of the water supply of Kathmandu (Melamchi Water Supply Project MWSP) after a debris flow, acted as supervisor for numerous protection projects in Canmore, Canada, also after numerous debris flows, and supported BGC Engineering (Canada) in the planning of protection measures in British Columbia and Alberta. Prof. Hübl was an expert for the Slovenian Ministry of Environment and Spatial Planning to assess the measures after the major landslide in Log Pod Mangartom, for the Autonomous Province of Bolzano-South Tyrol to review hazard zone plans and for the Province of Salzburg to assess the planned flood protection measures in Oberpinzgau. Prof. Hübl has also prepared several expert reports as a court expert. In addition, as a long-standing program supervisor of the master's degree program "Torrent and Avalanche Control / Alpine Natural Hazards", he is a central scientific personality in the training of future experts in protection against avalanches and other natural hazards. Particularly noteworthy is his decisive role in dealing with the devastating avalanche winter of 1999, especially with regard to the dramatic avalanche in Galtür (Tyrol), where

his analyses and findings have made a significant contribution to improving protection against future avalanches. In addition, he has supervised numerous master's theses and dissertations in the fields of torrents and avalanches, enabling young scientists to make their own research contributions and further advance the field. This combination of practical experience, scientific expertise and commitment to education makes Prof. Hübl a leading expert in the field of avalanche research in high mountains.

#### (bbb)

Irrespective of the question of the degree of probability from which a concrete risk within the meaning of Section 1004 (1) sentence 2 BGB would have to be affirmed in the present case, the Senate considers the probability of occurrence of a risk to the plaintiff's property from a GLOF of 1% over the next 30 years, as determined by the court experts, to be insufficient.

Such a small percentage excludes the serious concern of an imminent infringement. The infringement of property rights feared by the plaintiff is not tangible in fact; on the contrary, it must be assessed as very unlikely. This is all the more true as scenario X, which has been determined to be probable, does lead to the flooding of the plaintiff's property, but according to the findings of the experts, it does not have a significant impact on the stability or the structure of the plaintiff's property. A destructive event is therefore even less likely. This applies all the more to any adverse effects on the health of the residents.

Insofar as the plaintiff, referring to a statement by Prof. Dr. Kieninger on the present proceedings (Exhibit BK44), points out that the Federal Court of Justice considered a probability of less than 0.1% to be sufficient in the so-called "*lemonade bottle case*" (BGH, judgment of June 7, 1988 - VI ZR 91/87), which is why a probability of occurrence in the low single-digit range is also sufficient in the present case, this objection is misguided. The decision referred to dealt with questions of producer liability, i.e. the liability of a manufacturing company for a

product that is manufactured and marketed in a constantly repeating production process. Even a very small risk in itself, such as the risk of a sparkling water bottle exploding by less than 0.1%, increases over time due to continuous production. Accordingly, the BGH stated in the decision in question that such accidents - the plaintiff there lost part of the sight of his left eye due to an explosion of the bottle - were rare in view of the high beverage turnover and the common use of such soda bottles; however, they occur again and again and have long been known to the beverage industry as a specific product risk (BGH, judgment of June 7, 1988 - VI ZR 91/87, para. 8). In contrast, the present dispute concerns a single, clearly defined liability relationship between two private law subjects, which is not even remotely comparable with the constellation described.

Nor can it be inferred from the other BGH decisions cited by the plaintiff that a probability of 1% for the occurrence of a property infringement is sufficient to affirm a claim for injunctive relief or removal pursuant to Section 1004 (1) BGB. The cited decisions predominantly deal with serious damage to legal interests of particular importance such as life, physical integrity and health. In the present case, however - as already mentioned - it is primarily a matter of an imminent violation of property, not the constitutionally higher-ranking legal interest of physical integrity. The latter could only be indirectly threatened if the stability of the plaintiff's house were to be impaired. However, the risk of an impairment of the stability of the plaintiff's house is also negated by the available expert opinions in the event that water reaches the plaintiff's property in the event of an overflow of the two artificial dams and the ground moraine wall in scenario X.

It should be noted at this point that the plaintiff's private experts in their

"*Expertise*" of 22.01.2024 (Annex BK35 to the written submission of 30.01.2024, p. 3329 et seqq. of the annex) that, based on the practical experience gained and the expert knowledge, a probability of occurrence of 9.5 % or 10 % should be required for a sufficient probability in the specific case. This would make it possible to consider 300-year geohazard events in the risk assessment; this would be in line with the common practice in GLOF assessment of considering events with a low probability but high magnitude.

because of their considerable damage potential (Annex BK35, p. 6). The probability of occurrence determined by the experts at 1% is far below the required 9.5% or 10%. Even according to this standard, a serious threat to the plaintiff's property cannot be affirmed, even if an additional "*climate factor 2-4*" is applied.

## (b)

The Senate does not consider the plaintiff's objection that the experts did not include the <u>risk of rock/landslides</u> in their calculations as part of their risk analysis to be valid.

## (aa)

To the extent that the plaintiff's assertion that his property is also at risk from rockfalls above Laguna Palcacocha is based initially on the Haeberli report submitted by him as Annex BK37 to the written submission of January 30, 2024 (p. 3329 et seq. of the) submitted by Haeberli *"On the calculation of the probability of occurrence of a major damage event in the Palcacocha-Huaraz area"* (Jan. 2024), this report is unsuitable for calculating the probability of occurrence of the risk to the plaintiff's property according to the comprehensible and convincing explanations of the experts. The report deals exclusively with the question of the probability of occurrence of a serious, destructive damage event for the plaintiff's property, which is given as 1 to 10 %. Even if Haeberli's methodological approach is adopted, the probability of occurrence of a landslide event with a volume of at least 1 million m<sup>3</sup> at the lagoon, including the acceleration factor, is only 5.6 % for an observation period of 30 years according to the experts' calculation, taking into account accurate data. The risk of damage to the plaintiff's property would be considerably lower.

In detail:

(aaa)

Haeberli first looks at the probability of occurrence of rock or cliff risks.

/He calculates an annual frequency per km<sup>2</sup> of susceptible area of 0.0001 (0.01 %) based on a so-called susceptible area - the area covered by glaciers or permafrost - of 2,500 km<sup>2</sup> and an average return period of a rock or rock/ice fall per km<sup>2</sup> of 10,000 years/km<sup>2</sup>. He applies this frequency to Laguna Palcacocha, assuming the glacier area in the Peruvian Cordilleras to be 500 km<sup>2</sup> and thus arriving at a return period of 2,500 years/km<sup>2</sup>. Based on a so-called susceptible area (with steep slopes, glacier ice and permafrost) of 10 km<sup>2</sup> at Laguna Palcacocha, which extends from the shore area of the lake to the surrounding mountain peaks (Annex BK37, Fig. 1), and using a so-called acceleration factor of 2 or 4 to account for the global rise in temperature and the resulting glacier retreat or permafrost degradation, Haeberli calculates the probability of occurrence for a rock or rock/ice fall with a volume of more than 1 million m<sup>3</sup> at 0.008 to 0.016 (0.8 % to 1.6 %). For the next 30 years, the probability of occurrence is 0.21 to 0.38 or 30% with a tolerance of +/- 8.5%.

%. In view of the fact that the frequency of events in Peru is probably underestimated due to undocumented cases, the blatant accumulation of events - three major rockfalls in the last four years - possibly indicates a greater acceleration of development in Peru, and all dangerous lakes in the catchment area should have been taken into account for a correct risk analysis, the probability of occurrence should be assumed to be over 30%. The (annual) probability of occurrence of a serious, destructive loss event for the plaintiff's property in Huaraz is between 1 % and 10 % (p. 3 et seq. of Exhibit BK37, p. 3359 et seq. of the file).

#### (bbb)

According to the assessment of the experts Prof. Katzenbach and Prof. Hübl, which the Senate fully agrees with, Haeberli's methodology outlined in this way is not useful for assessing the question of evidence in this case.

Firstly, the assessment lacks an analysis of the local conditions. However, according to the assessment of the court experts, such an analysis is absolutely necessary; it is also required in the FOEN Guideline (2016) (cf. Prot. of 17.03.2025, p. 14). In the final report of the ARGE ALP (June 2017) submitted by the plaintiff himself as Annex BK42 (p. 3650 et seq. of the annex) entitled "Rock and landslides in permafrost areas: Influencing factors, trigger mechanisms and conclusions for practice", which in turn refers to other studies, convincingly demonstrates that a combination of several factors usually leads to the ultimate rock failure. This means that data on potential movements of the affected rock massif measured on site must always be included in the assessment of possible rockfalls. However, this is lacking in Haeberli's methodology: when transferring the risk of rock/mountain falls in the Alps to those at Laguna Palcacocha, Haeberli only considers two variables, namely the number of fall events and the ratio of reference areas. The local conditions - in particular the relevant interface systems, the shear strength, the water and temperature conditions and the genesis of the area under consideration would be ignored with this methodology (p. 90 ff. SVG II). From the Senate's point of view, this is all the less comprehensible as Haeberli himself assumes in his report that large-scale rockfalls are locally unique phenomena with a cumulative history (rock development under the influence of weathering, erosion, earthquakes, climate change, p. 3 of Annex BK 37).

Furthermore, according to the experts, there is a fundamental lack of comparability between the areas in the Alps and Peru compared by Haeberli. The 56 rockfall events in the Alps analyzed by Haeberli were in part unrelated to glaciers or the permafrost melt induced by climate change. Consistency of the assumptions for the compared areas could only be guaranteed if either the elevation levels used for the study areas were adjusted or mass movements not influenced by permafrost with a cubic volume of more than 1 million m<sup>3</sup> were excluded from the calculation (p. 80 f. SVG II). Based on this premise, there were only seven rock/landslides with a volume of more than 1 million m<sup>3</sup> in the Alps in the glacier/permafrost area in the period under consideration from 1901 to 2007. Contrary to Haeberli's assumption, only a susceptible area of around 5 km<sup>2</sup> instead of 10 km<sup>2</sup> above Laguna Palcacocha can be used in the calculation. Rock falls could occur

only occur where ice retreats. However, half of the area considered by Haeberli, namely the unfrozen slopes of the lateral moraine walls and the rock faces not covered by glacier ice, is free of ice and glaciers (p. 85 SVG II).

According to the experts, the acceleration factor of 2 or 4 applied by Haeberli should not be taken into account. The effect of increasing the frequency of rockfalls for smaller, near-surface events is certainly demonstrable and undisputed. However, this does not apply with regard to rockfalls with a volume of more than 0.4 million m<sup>3</sup>; here it is not scientifically undisputed whether the return period should be reduced by a factor of 2 to 4 (p. 90 ff. SVG II). For example, the authors Loew et al. (2020) from ETH Zurich - in relation to rockfalls in Switzerland - have clearly shown that there is no evidence of an increase in the frequency of these events in recent decades for rockfall events with a volume of more than 0.4 million m<sup>3</sup>. It is also comprehensible that the global rise in temperature and climate change do not have an effect on the frequency of large rockfalls, as rockfalls are only the end point of a longer process, sometimes lasting thousands of years, and are not suddenly triggered by an individual event (p. 90 ff. SVG II with reference to the final report of ARGE ALP (June 2017), Annex BK42). The acceleration factor of 2 to 4 applied by Haeberli therefore already raises concerns for the Alps.

How Haeberli calculates an annual probability of occurrence for a serious, destructive event on the plaintiff's property of 1-10% is ultimately not clear to either the court experts (see report of March 17, 2025, p. 13) or the Senate.

#### (CCC)

Even if Haeberli's methodological approach is adopted and corrected for the points outlined, the serious concern of a future, imminent infringement of the plaintiff's property cannot be established.

The experts' calculation "adjusted" for the points described above in accordance with Haeberli's approach also results in a

Probability of occurrence of rock or rock/ice avalanches with a volume of more than 1 million m<sup>3</sup> at Laguna Palcacocha for the period 1901-2007 of (only) 0.00054 (0.054 %), for the period 1901-1980 of 0.00043 (0.043 %) and for the period 1980-2007 of 0.00089 (0.089 %). Even if the return period is reduced by an acceleration factor of 2 to 4, the risk of a large rock or rock/ice avalanche is very low according to the calculations of the forensic experts. If the three periods examined by Haeberli were set in relation to each other, the result would be an acceleration factor of 2.14 (p. 89 SVG II). The experts then based the 30-year observation period at Laguna Palcacocha on the shortest return period with the most unfavorable initial value of 1,115 years (period 1980-2007); taking into account the aforementioned acceleration factor, this r e s u I t e d in a return period of 521 years. Based on Haeberli's methodological approach, the probability of occurrence of a rockfall with a volume of 1 million m<sup>3</sup> or more at the lagoon, including an acceleration factor of 2.14, is 0.056 or 5.6 % for an observation period of 30 years (p. 89, 138 f. SVG II).

This does not take into account the fact that the probability of occurrence of a rock/landslide cannot be equated with the probability of occurrence of the risk to the plaintiff's property from a potential flood wave (see p. 92, 139 SVG II). In order to calculate the risk of a flood wave that could reach the plaintiff's property, it is necessary, according to the experts' findings, that the six-link process chain from the GAPHAZ publication by Allen et al. (2017) is processed. This leads - also based on Haeberli's methodology - to an even lower probability of flooding of the plaintiff's property than 5.6%.

## (bb)

The plaintiff is unsuccessful in his assertion that, in addition to ice avalanches, glacier collapses and rock slides, the experts had also identified rock slides.

/The Canadian authorities, who must include landslides as potential trigger events in their investigations, refer to a report by the Canadian firm BGC Engineering (hereinafter: BGC) dated 17.01.2024 (Extended Report, Annex to Appendix BK36). Just like the

As in the Haeberli report, the BGC report also deals exclusively with the question of the probability of a rockfall or landslide, but not with the probability of the plaintiff's property being affected by a tidal wave triggered by such a rockfall. Moreover, the probability of 4.7% stated by BGC is only achieved by increasing the initially determined probability by a factor of 100. Neither the experts nor the Senate can see a comprehensible basis for this.

In detail:

(aaa)

On the basis of satellite-based InSAR displacement measurements over a period of around seven years a n d the determination of the area of separation using a rockfall inventory, BGC determined the annuality for a rockfall with a volume of more than one million cubic meters. For this purpose, BGC determined six so-called sets based on the calculated discontinuities and carried out kinematic analyses of potential rockfalls for the slopes dipping to the west and south. For this purpose, the engineering office identified two areas of potential rockfalls, which it designated as Case 1 and Case 2 (Figure 3-2., p. 52 Extended Report). To statistically assess the risk of a rockfall, BGC used a regional rockfall inventory for the 2,617 km<sup>2</sup> Huascarán National Park, in which Laguna Palcacocha is located, and arrived at an average annual probability of a rockfall with a volume of more than 1 million m<sup>3</sup> occurring once in 62,893 years per km<sup>2</sup>. Based on the observation period 30-year , this corresponds to a probability of occurrence of a

"*million fall*" of around 0.05 %. BGC itself comes to the conclusion that the results of the InSAR analysis do not currently indicate large-scale slope movements in the area (Annex BK36, p. 45). In order to quantify local conditions at Laguna Palcacocha and the predicted decline in permafrost, BGC then increased the probability of occurrence by a factor of 100 (applying a factor of 10 twice). This resulted in a return interval of once in 629 years or for the period of 30 years

the probability of occurrence of a rockfall with a volume of more than one million cubic meters of 4.7 %.

# (bbb)

According to the comprehensible and convincing assessment of the court experts, BGC's approach to assessing the question of evidence here must be rejected.

Firstly, the rockfall inventory used to determine the probabilities was not comprehensible. Crucial information was missing, such as the name, date, coordinates and volume of the rockfalls taken into account. The average height, the direction in which the slope fell, the spatial extent and the relevant lithology were also important; these details were also missing. The period of 10,000 years was arbitrarily determined; data on glacier retreat in the Cordillera Blanca for the last 10,000 years had not been submitted (Prot. of 19.03.2025, p. 3 f., Charts 170 f.).

The evaluation of the InSAR displacement measurements carried out by BGC and the determination of the separation area also raised concerns in the opinion of the court experts. Firstly, four of the ten measurement series were physically impossible, as they indicated downhill and uphill displacements. A fifth series of measurements was also unusable, as a landslide following the slope of the terrain would at best

"parking lot" at the foot of the ground moraine wall and would never reach Laguna Palcacocha. From the remaining five series of measurements, BGC rightly concludes that there are currently no indications of large-volume rockfalls at Laguna Palcacocha (p. 97 SVG II, Prot. of 19.03.2025, p. 4 ff.). Case 1 as defined by BGC roughly corresponds to blocks 5, 6 and 7 identified by ANA. According to the experts' calculations, the overflow volume of 330,000 m<sup>3</sup> resulting from the glacier collapse of these blocks, which total around 2.5 million m<sup>3</sup> in size, would not reach the plaintiff's property (p. 207 et seq. SVG I; p. 98 SVG II). Furthermore, if the orientation of the discontinuities (angle of incidence and direction of incidence) is used to assess any rockfalls that may occur, it should be noted that the angle of incidence is greater than the slope angle. For this reason, it is not kinematically possible for the

It is not possible that large-volume rockfalls could form in the area of Case 1; at most, rock or block falls or comparatively small-volume rockfalls are conceivable, but these could in no case lead to a risk to the plaintiff's property. The area of Case 2 is largely identical to the location of Blocks 1-4 according to ANA's specifications, which have a total volume of around 1.56 million m<sup>3</sup>. In the area of Set 1 of the discontinuities - as in Case 1 - rockfall or small-volume rockfalls could occur at best. In the area of Set 3b, rockfalls from Block 2 and Block 4 with a total volume of 0.77 million m<sup>3</sup> cannot be ruled out. However, rockfalls or glacier collapses of this magnitude did not lead to any impairment of the plaintiff's property (p. 98 f. SVG II). Ultimately, the decisive factor was that the movements of just under 20 cm, which the InSAR displacement measurements had shown, were not a cause for concern in relation to the high mountains. Displacements only give an indication of impending rockfalls if they are progressively accelerating, i.e. if the movement becomes faster and faster from measurement to measurement. However, BGC had not found such an acceleration for the period under consideration of more than six years (report of 19.03.2025, p. 4 ff.).

Irrespective of this circumstance, BGC does not make any statement on the probability of occurrence of a rock/landslide or on the stability of the rock sections under consideration on the basis of the analysis of the discontinuities and with the kinematic analysis, but merely states that planar sliding or wedge-shaped rockfalls are possible (p. 95, 100 SVG II). A fortiori, there was no calculation of the probability of the plaintiff's property being affected by a tidal wave triggered by such a rockfall, which was precisely what was important in the present case. In order to determine this, the process chain according to the GAPHAZ publication would have had to be worked through (p. 139 SVG II).

Finally, according to the expert assessment, there is no justification for BGC's approach of calculating the annual probability of occurrence of a rockfall with a volume of more than one million m<sup>3</sup> by multiplying the probability of occurrence for Huascaran National Park by a factor of 100. The conditions for the double application of a factor of 10, as BGC does, are not met. The application of the first factor would require separation areas over a length of several hundred meters above the lagoon. However, there is no evidence of this; evidence of

There is no evidence of continuous discontinuities. Although there is undoubtedly permafrost and permafrost degradation on the slopes above Laguna Palcacocha, despite very close observation of the lagoon, there is no evidence of retrospective destabilization of the rocky slopes over the last 10,000 years that would justify a second factor of 10. The factor 100 is far on the safe side, especially since the assessment of the influence of climate change on the degradation of the permafrost through the application of an acceleration factor is not scientifically proven (p. 100 SVG II, Prot. of 19.03.2025, p. 6 f.). The Senate fully agrees with this assessment. In the absence of sufficiently reliable findings, it cannot be assumed in the context of a hazard forecast for large rockfalls that the development of permafrost in the area of Laguna Palcacocha due to climate change has significantly increased the probability of a rockfall in the past 10,000 years - and certainly not by a factor of 10. Even the current distribution of permafrost is disputed between the parties. There are even more reservations about making a sufficiently reliable statement about potential changes in permafrost in the past.

#### (CCC)

Even if BGC's approach is followed, the serious concern of a future, imminent infringement of the plaintiff's property cannot be established.

In their supplementary report, the experts stated that the probability given by BGC for a rockfall with a volume of more than 1 million cubic meters for Huascarán National Park must in any case be multiplied by the size of the rock and ice surface above Laguna Palcacocha. This would result in a probability of occurrence of a rockfall with a volume of more than one million cubic meters for the lagoon of about 0.5 % (Figure 8, p. 78 SVG II). However, Prof. Dr. Arenson clarified at the hearing that BGC had actually carried out the multiplication with the relevant area; this had merely not been shown in the report. Therefore, based on the 30-year observation period, the probability of occurrence of a "million fall" remains at around 0.05% and, after applying the factor of 100, at a probability of 4.7%.

Irrespective of this, however, it must be taken into account that the probability of occurrence of a rock/landslide cannot be equated with the probability of occurrence of the risk to the plaintiff's property. The latter is still much smaller; this is also pointed out by the court experts (p. 139 SVG II).

### (CC)

The concrete danger of a rockfall on the slopes around Laguna Palcacocha is also not apparent from the statements of the plaintiff's private expert Prof. Dr. Mergili.

Prof. Mergili, referring to a photograph from 1947 (p. 107 SVG I), pointed to a darker or shaded area on the slopes to the northeast of the glacial lake and argued with the forensic experts that a rockfall must have occurred in this area in the past; this may have contributed to the flood event of 1941. The existence of a landslide event calls into question the assessment of the forensic experts that rockfalls are unlikely due to the rock structures surrounding Laguna Palcacocha.

However, the court expert Prof. Dr. Hübl was able to refute this objection for several reasons. Firstly, it had not been proven that a fall had actually occurred at the point in question. If this had been the case, there would have had to be rocks and rock fragments in the impact area; however, these could not be seen in the photograph. Secondly, it had to be taken into account that the alleged rockfall was located in an area that had been covered by water before the flood event of 1941. Any rockfall at this location could therefore not have contributed to the flooding event, but could only have occurred later. If such an event had actually occurred, it could only have been a minor landslide of loose rock. The expert's assessment therefore remains that mass falls on the slopes around Laguna Palcacocha are unlikely due to the lithology - the embedding in batholith (see report of 17.03.2025, p. 14 f.).

(c) Also the <u>further objections</u> of the plaintiff against the expert's calculation of probability are not valid.

(aa) The plaintiff unsuccessfully argues that the experts disregarded the well-founded global knowledge of dangers and risks in connection with glacial lake outburst floods (GLOFs), as the expert reports neglected essential physical elements for the simulation of the entire flood process chain (p. 3338 of the file).

According to the non-legally binding guidelines of GAPHAZ - a group of international scientists focusing on the assessment of glacier and permafrost hazards - on which the plaintiff relies, an integrative assessment of GLOFs is recommended, taking into account factors such as rock and ice avalanches, erosion and sediment uptake along the course of the river in order to simulate the entire process chain.

All points to be considered in accordance with the GAPHAZ publication have been incorporated and processed in the expert reports. Where the original report did not include calculations taking erosion and sediment transport into account, the corresponding calculations were made in the supplementary report.

(bb) The plaintiff's objection that the experts did not carry out a scenario-based assessment of rock/ice avalanches taking into account the changing environment in the High Andes, but based their investigations on only five past events and extrapolated these in order to predict the future assuming a static system and neglecting climate change (cf. pp. 3339, 3343 d.A., Expert Report BK 35, p. 5 f.), does not hold water either.

From the Senate's point of view, the increasing frequency of large rock and rock/ice avalanches worldwide and in Peru (claimed by the plaintiff) cannot be taken into account in abstract theory either, but only a location-based probability forecast taking into account the specific local circumstances is decisive. Other events in the region of Laguna Palcacocha

as the experts rightly point out (p. 142 SVG II), play no role in the site-specific considerations. The conditions prevailing at other locations cannot be transferred to the geological conditions at Laguna Palcacocha without further ado, especially since the risk of an ice or ice/rock avalanche or a rockfall depends on numerous factors. Therefore, the event at the Vallunaraju summit in April 2025 cited by the plaintiff in the statement of May 9, 2025 (p. 4423) does not change the result of the experts' probability calculation. There is therefore no reason to reopen the already closed oral hearing pursuant to Section 156 ZPO and to continue the taking of evidence; moreover, the plaintiff's submission on the more detailed circumstances of the event is also not sufficiently specific. The Swiss Alps repeatedly referred to by the plaintiff differ fundamentally in terms of their altitude and climatic conditions from the area around Laguna Palcacocha to be examined in the dispute, which is located in a tropical high mountain range at an altitude of 4,560 meters. The plaintiff also does not further explain why the Alps should be suitable as a reference area for the Peruvian Cordillera Blanca. The experts have carried out the necessary sitespecific probability forecast, in particular they have dealt with the possibility of rockfalls and examined in detail the potential trigger events for glacier ice collapse identified by the local authorities ANA and INAIGEM as well as Cases 1 and 2 identified by BGC. In doing so, they considered rising temperatures and climate change as causes for the loss of these specified blocks (see p. 144 SVG II). The plaintiff's experts themselves were unable to find any actual evidence of a relevant trigger event using the methodology they applied. The experts plausibly and convincingly explained why they based their probability calculations on data from only five documented events at Laguna Palcacocha since the turn of the millennium, namely the events of 2003, 2017, 2019, 2021 and 2024 (p. 142 SVG II). They justify this comprehensibly by arguing that the lake water surface has only been approximately the same size as today since 2003, which is why similar boundary conditions can be assumed. Moreover, in their opinion, there is a lack of comparability. In particular, the 1941 event could not be used to calculate the current and future risk: At that time, the complete failure of the slender and demonstrably unstable terminal moraine wall was the decisive factor,

while the valley-side barrier of the lagoon today consists of the almost 1 km wide, very robust ground moraine wall and the two artificial dams. Although it is known that other smaller events have occurred since 2003, the lack of documentation means that it is only possible to speculate about their size and frequency (p. 142 f. SVG II). Moreover, taking these smaller events into account or extending the period under consideration to the past 83 years would further reduce the probability of occurrence (see Prot. of 17.03.2025, p. 7). The plaintiff does not raise any specific objections to these statements; in particular, he does not specifically state that and, if applicable, which other events should be taken into account and for what reasons. The mere reference to the rockfall inventory compiled by BGC is not sufficient. Contrary to the plaintiff's assumption, there is also no reason to fear that the data set, which is limited to the five locally documented events mentioned above, undermines the robustness of the frequency and magnitude calculations and omits undocumented events, which would lead to an overestimation of the recurrence periods. Laguna Palcacocha has been observed at least since 2011 (according to the plaintiff's submission p. 3368 of the file). The Senate considers it far-fetched that the experts and the competent authorities could have overlooked a not insignificant event that occurred previously.

Contrary to the plaintiff's opinion, it is not necessary within the framework of the experts conducted location-based probability forecast application of a no somehow "climate factor". The experts have clearly explained that they have taken climate change into account in their calculations by allowing a glacier block that was previously stable but identified as critical by the local authorities to start to slide (see report of 17.03.2025, p. 6). They thus assume a detachment of ice blocks - possibly caused by climate change or a rise in temperature - in the 30-year observation period specified by the Senate, although according to their findings, no movement can currently be seen on these blocks and a possible break-off is therefore completely uncertain.

The approach of the climate factor considered necessary by the plaintiff is scientifically also not generally accepted or does not correspond to the "sound global knowledge". The forensic experts have explained that - irrespective of the methods chosen for the determination of probability methodology - the approach of such a climate factor was not encountered anywhere in their research, but exclusively and for the first time in Haeberli's work. From the Senate's point of view, it would also be questionable at what level any climate factor should be set; the value would ultimately be taken.

However, even if a "*climate factor of 2-4*" were applied to the probability of occurrence of around 1% determined by the court experts, the probability of occurrence of an event threatening the plaintiff's property would still be less than 5%. In the opinion of the Senate, this is not sufficient to assume an imminent impairment within the meaning of Section 1004 (1) sentence 2 BGB.

# (CC)

It is not objectionable that the experts mainly used hydrological methods. Contrary to the plaintiff's opinion (p. 3341 of the appendix, p. 8 Expertise BK 35), such methods are not only used to assess flooding caused by precipitation events. In this respect, the experts refer to the FOEN Guideline (2016), according to which natural hazards such as floods and avalanches are assessed according to identical principles.

In their supplementary report, the experts also considered and assessed erosion processes and sediment transport along the course of the river.

# (dd)

The plaintiff also complains, without success, that the expert reports do not take into account the instability of rocky slopes due to deglaciation and the thawing of permafrost.

The court experts confirmed at the hearing that permafrost has a slope-stabilizing effect and, in water-saturated rock and soil, significantly increases the load-bearing capacity and thus also the stability of the corresponding rock and soil sections. If the permafrost disappears, this additional stability will also disappear (Prot. of 19.03.2025, p. 3).

However, there is no evidence of permafrost thawing or destabilization of the rock on the slopes around Laguna Palcacocha. In this respect, the Senate agrees with the detailed and plausible assessment of the court experts, according to which the current distribution of permafrost on the slopes around Laguna Palcacocha is unclear and there is no evidence of destabilization of the slopes caused by permafrost degradation. The consequence of this is that an increase in the probability of occurrence of a GLOF critical for the plaintiff's property as determined by the experts by any kind of "increase factor" is out of the question.

The current state of knowledge about the permafrost distribution in the mountains around Laguna Palcacocha is uncertain, as there is a lack of the necessary localized data:

The plaintiff referred to a permafrost map prepared by his private experts - the engineering firm BGC - but clarified in the hearing on March 17, 2025 that he assumed - in contrast to BGC's presentation - that permafrost also occurs at altitudes below 5,000 m. The Senate has doubts about BGC's permafrost map because, according to BGC, no local data was used to calibrate the permafrost modeling and the absence or presence of ground ice, which has a major influence on permafrost distribution, was not taken into account. BGC itself recommends using the model results only as an indicator of the potential existence of permafrost.

The defendant disputed that the permafrost map drawn up by BGC corresponded to the actual conditions on the ground. It also disputed that the

"heat disturbance" had already penetrated the mountain at a depth of over 100 m (p. 3528 of the file). It referred to the statements of its private experts Prof. Dr. Schüttrumpf and Prof. Dr. Amann, who created a permafrost map for the area around the lagoon by extrapolating the data according to Andres et al. (2011) (Annex B72, p. 14 ff., 20). According to this, the lower limit of permafrost is 5,050 m; continuous permafrost at Nevado Palcaraju and Nevado Pucaranra can be expected above 5,420 m. With regard to the extrapolated results of Andres et al. (2011), however, it is also uncertain - according to the defendant's private experts - whether these

are applicable to the peaks around Laguna Palcacocha; however, these are the only available data.

The court experts were unable to establish from the investigations they carried out that the permafrost distribution and melting at Laguna Palcacocha is actually as claimed by the plaintiff. On the contrary, they consider it impossible that relevant permafrost is already present below an altitude of 5,000 meters. They have justified this, among other things, by stating that no signs of permafrost were found in the 2003 landslide (Prot. of 17.03.2025, p. 10 f., 16; Prot. of 19.03.2025, p. 3).

It was also not possible for the experts to make further findings on the actual distribution of permafrost on the slopes around Laguna Palcacocha as part of their assessment. According to their assessment - which is in line with the concurring submission of both parties (cf. p. 3553 of the file, Annex BK36 p. 42) - long-term data is required for a reliable assessment of the formation and development of permafrost, which is lacking for the area of the lagoon. Permafrost can only be reliably detected by core drilling and subsequent continuous temperature measurements in the borehole. Such core drillings would have provided further insights into the stability, strength and temperature of the slopes (Prot. of 17.03.2025, p. 10, Charts 97 f.). Corresponding measures were initially planned by the experts, but could not be carried out for legal reasons due to the lack of approval by the competent authorities as well as for cost reasons. Furthermore, although individual boreholes would have shown the current condition of a slope, the necessary long-term data would still have been lacking.

The Senate does not agree with the plaintiff's view that in the present case it is not necessary to define a specific trigger event in the concrete environment of the lagoon, but rather that the risk of collapse is structural and arises from the physical occurrence of melting glaciers and warming, still frozen (permafrost) mountain slopes (p. 3640 of the file). This would assume the existence of permafrost in favor of the plaintiff. In the oral explanation of their expert opinions, the experts did state that the warming of the climate and the resulting glacier retreat at Laguna Palcacocha was clearly recognizable. A

There is no evidence of permafrost thawing or destabilization of the slopes around the lagoon (Prot. of 17.03.2025, p. 10, Charts 93 ff.).

(d)

Furthermore, it must be taken into account that <u>the assumptions made by the experts</u> when determining the probability of occurrence of a risk to the plaintiff's property below Laguna Palcacocha in the next 30 years due to flooding and/or a mudslide originating from the lagoon <u>favor the plaintiff several times over</u>. The risk, which according to the results of the expert reports is around 1%, is therefore significantly lower when viewed realistically, with the result that a risk of first occurrence within the meaning of Section 1004 (1) sentence 2 BGB must be denied all the more.

This applies first of all to the height of the valley-side barrier on which the calculations were based. For reasons of simplification, the experts have consistently based the height of the dam crest on the height of the primary dam as the lowest point. In reality, however, the barrier consisting of the primary and secondary dams and the ground moraine wall is on average 4 m higher than the primary dam. If the local conditions in the form of the different heights of the valley-side barrier were correctly taken into account, the same amount of water would flow over the valley-side barrier in the event of an overflow of the primary dam, but the hydrograph would be stretched over time, which would significantly reduce the risk of flooding of the plaintiff's property. According to the experts, the "safety buffer" resulting from the fact that the valley-side barrier is on average 4 m higher than the primary dam means that an event occurring at a time when the lake water level, which regularly fluctuates within a range of around 2.5 m, peaks at approx.

4,563 m, as was the case with the event of 23.01.2024 (Prot. of 17.03.2025, p. 4; Prot. of 19.03.2025, p. 15).

The experts also overestimate the potential flood wave from Laguna Palcacocha in the event of a glacier collapse in order to be "*on the safe side*". Their

The calculation of the surge and tidal waves is based on idealized boundary conditions and assumptions that tend to lead to an overestimation of the impact velocity and wave height. This is because they base their calculations - based on the calculation approach of Frey et al. (2018) - on the assumption that the direction of the landslide and the direction of the longitudinal axis of the lake are identical; however, this does not necessarily have to be the case. In addition, the calculation is one-dimensional and does not take into account the lateral propagation of the landslide or the waves. The fact that landslides on the slope could be stopped or slowed down by rock ledges is also not taken into account. Finally, the shallow water area extending only 5 to 15 m deep into the lake around 400 m from the valley-side shoreline is not taken into account (p. 225 SVG I, p. 146 ff. SVG II). According to Prof. Katzenbach at the hearing on 19.03.2025, the latter circumstance represents a considerable safety buffer. The upstream shallow water area has the effect that the surge wave in the area of the transition from deep water to shallow water initially becomes larger, but then breaks with the result that the wave subsequently propagating in the shallow water is smaller overall. As a result, the overflowing wave also becomes smaller. If the shallow water area is taken into account, the overflow volume is only around 80% of the calculated volume (see report of 19.03.2025, p. 8).

Also as a result of the friction parameters adopted by the experts from Frey et al. (2018) for reasons of comparability - in the calculations according to RAMMS::debrisflow, a friction coefficient of 0.04 was used instead of a realistic value >0.1 - the flow distance and thus the hazard potential are overestimated due to the selected input data (p. 112 SVG II, Prot. of 19.03.2025 p. 8).

In view of the above, it can be left open whether there is an overestimation of the wave triggered by an event due to the density of the potential avalanche event and the fluid flowing into the valley of 1.000 kg/m<sup>3</sup> used by the experts, whether the volume of the avalanche triggered in 2003 was underestimated on the basis of the validation calculations carried out by the experts for the avalanche events of 19/03/2003 and 05/02/2019, whether the location of the release of the avalanche was correctly selected with regard to the event in 2019 and whether this has any effect on the

speed of the avalanche (p. 148 ff. SVG II). All of the aforementioned points work - if at all - in the plaintiff's favor.

# (e)

Finally, a risk of initial danger within the meaning of Section 1004 (1) sentence 2 BGB cannot be affirmed, especially considering the fact that the <u>water level</u> of Laguna Palcacocha <u>could be permanently lowered by several meters</u> with the existing means and installations. This is because the lowering of the lake water level would significantly reduce the already very low probability of the house being endangered.

## (aa)

It is undisputed that a total of twelve siphons have been installed at the lagoon for the controlled lowering of the water level, but these were only partially in operation - at least at the time of the on-site visit.

During the meeting held by the Senate and the parties involved on 27/05/2022 at the Corte Superior de Justicia de Ancash with the representatives of the various authorities, it became clear that the various authorities have conflicting interests with regard to the lagoon. On the one hand, the authorities are required to minimize the risk of flooding from the lagoon as far as possible as part of risk prevention by keeping the water level as low as possible, while on the other hand the lake serves as a water reservoir to ensure the supply of drinking and industrial water to the population. According to the minutes of the meeting, there was consensus among the various representatives of the authorities that the water level could be permanently lowered by at least four meters via the existing siphons - according to the representative of the regional government of Ancash even by twelve meters - but that this would not be done in view of the use of the lagoon as a drinking water reservoir (cf. p. 29 f. of the informal note on the site visits and meetings in Huaraz and at Laguna Palcacocha in the period from 24.05. to 27.05.2022, p. 2847 f. of the file). According to the plaintiff's submission (p. 3449 of the file), he was informed in a more recent conversation by the regional government of Ancash

on 05.03.2024 that the lake water level could be reduced by two meters with the help of the existing siphon system. Until the oral hearing, neither the plaintiff - who, on the contrary, adopted the official statement as his own - nor the defendant expressed any doubts as to the accuracy of this statement. Insofar as the plaintiff claimed at the oral hearing on 19 March 2025, with reference to his private expert Prof. Dr. Arenson, that the siphon lines were only a temporary solution that did not correspond to the state of the art and could only be regulated at short notice in an emergency (minutes of 19 March 2025, p. 13 f.), the accuracy of this statement can ultimately be left open. It is ultimately undisputed that human intervention in the regulation of the water level at Laguna Palcacocha can and does occur. Whether the possible lowering of the lake level by 2 m only takes place in an emergency or also beyond that does not change the corresponding possibility of the local authorities.

#### (bb)

According to the experts, lowering the water level of the lagoon by 2 m would have the effect of reducing the overflow volume over the dam crest by around 10%. The calculated probability of occurrence for a risk to the plaintiff's property of 1% would therefore be significantly reduced once again.

According to the experts' assessment, the plaintiff's property would not be reached by the flood wave caused by the overflow in any scenario if realistic calculation parameters were applied, even if an impact volume of 3 million m<sup>3</sup> due to an ice avalanche, a glacier collapse or a rock slide were assumed (p. 106 ff., 133 SVG II).

## (CC)

Since the Senate has already come to the conclusion, without taking into account a possible lowering of the water level of Laguna Palcacocha, that there is no risk of the first occurrence required under Section 1004 (1) sentence 2 BGB, there is no need to go into more detail on the question of whether and to what extent

it is attributable to the defendant if the competent authorities, knowing and accepting the possible danger of a glacial lake outburst flood emanating from the lagoon, consciously decide to forego the maximum possible lowering of the water volume for reasons of drinking water supply when weighing up the conflicting interests described above. Nevertheless, it should be noted that the Senate ultimately answers this question in the negative.

# II. Second main application / payment application

The plaintiff's unconditional application to order the defendant to pay

1.

The Senate has no objections to admissibility. With regard to jurisdiction, reference can be made to the comments under Section I.

# 2.

However, like the application for a declaratory judgment, the application for payment is also unsuccessful on the merits.

Since, according to the results of the taking of evidence, there is no imminent threat of damage to the plaintiff's property, the plaintiff is not entitled to reimbursement of the pro rata costs of self-remedy in accordance with Sections 1004 (1) sentence 2 in conjunction with 677 et seq. and 812 BGB. Against this background, it is irrelevant whether the measures carried out by the plaintiff on his property were at all suitable to avoid the risk of a

to prevent damage to its property or at least - by improving flood safety - to reduce it to the lowest possible level.

In the absence of an imminent impairment of property, there is also no need to go into more detail as to whether a claim by the plaintiff can also be derived in principle from Sections 1, 3 UmweltHG in conjunction with Section 1004 para. § 1004 para. 1 sentence 2 BGB in conjunction with GoA. GoA or enrichment law.

# Ill. First alternative claim / claim under 3.

Insofar as the plaintiff seeks a declaratory judgment in the third claim that the defendant is obliged to bear the costs of suitable protective measures in favor of his property against a glacier flood from Laguna Palcacocha in proportion to its contribution to causation to be determined by the court in accordance with § 287 ZPO, this claim is inadmissible for lack of certainty.

According to Section 253 Para. 2 No. 2 ZPO, the statement of claim must also contain a specific application in addition to a specific statement of the subject matter and the reason for the claim made. This defines the subject matter of the dispute and at the same time creates a prerequisite for any compulsory enforcement that may become necessary. Measured against this, a claim is generally sufficiently specific if it specifically describes the claim raised, thereby defining the scope of the court's authority to make a decision (Section 308 ZPO), indicates the content and scope of the substantive legal force of the requested decision (Section 322 ZPO), does not shift the risk of the plaintiff losing to the defendant through avoidable imprecision and, finally, allows enforcement of the judgment to be expected without continuing the dispute in enforcement proceedings (BGH, judgment of 21.11.2017 - II ZR 180/15, para. 8; BGH, judgment of 28.11.2002 - I ZR 168/00, para. 46; BGH, judgment of 14.12.1998 - II ZR 330/97, para. 7 with further references).

The present application does not meet these requirements. This is because the risk of the plaintiff being partially unsuccessful is shifted to the defendant by not specifying a concrete liability quota. The plaintiff's reference to Section 287 ZPO is misguided. This provision merely makes it easier for the injured party to

It offers no reason to spare the plaintiff from having to submit a concretely quantified claim (Zöller/Greger, loc. cit., Section 253 marginal no. 14 a).

Moreover, the application would also be unfounded for the reasons set out in section I.2.

# IV. Second alternative claim / claim 4.

The claim under 4. - aimed at ordering the defendant to take appropriate measures to ensure that the volume of water in Laguna Palcacocha is permanently reduced by 0.38% from its current level of 17.4 million m<sup>3</sup> - is admissible, but also unfounded. Insofar as the application quantifies the volume of water to be reduced as 81,780 m<sup>3</sup>, this was not taken into account in the amended application at the hearing on March 17/19, 2025; ultimately, however, this is no longer relevant.

## 1.

The admissibility of this application is not precluded by the fact that the action to be taken by the defendant - the *"appropriate measures"* - is not specified in more detail. In the case of an application for the removal of a disturbance pursuant to Section 1004 (1) BGB, it is sufficient to state the desired result, as the choice of several suitable means of removal is generally left to the debtor. The right to choose is only transferred to the creditor in the course of enforcement (Sections 887, 888 ZPO) unless, in exceptional cases, only one specific removal measure can be considered as promising and reasonable (BGH, judgment of 17.12.1982 -

V ZR 55/82, para. 17; BGH, judgment of October 22, 1976 - V ZR 36/75, para. 11 f; Zöller/Greger, loc. cit., § 253, para. 13c).

2.

However, the application is unfounded, as the plaintiff has no claim against the defendant under Section 1004 (1) sentence 2 BGB. Reference is made in full to the above statements.

It is therefore not necessary to go into more detail as to whether the requested measure at the lagoon to reduce the water volume could be subjectively impossible (Section 275 (1) BGB) in the form of a legal obstacle to performance, as the defendant is not the owner of the glacial lake and therefore cannot take any action there on its own authority.

It can also be left open whether the defendant's requested obligation can also be extended into the future - in accordance with the plaintiff's request - in that the defendant must ensure that the water volume remains permanently reduced by this amount of water. This is doubtful because it would have to be established to what a possible future increase in the volume of water could be attributed. Since the number of emitters and the extent of their CO2  $_{emissions}$  as well as the influence of natural causes for an increase in the volume of water are constantly changing, a causation rate of the defendant once established could not be assumed to remain constant in the future. Rather, this quota is constantly changing and would have to be adjusted accordingly.

# V. Third alternative claim / claim under 5.

Claim 5, according to which the defendant is to be ordered to take appropriate measures to ensure that the water volume of Laguna Palcacocha is permanently reduced from its current level of 17.4 million m<sup>3</sup> in accordance with the defendant's contribution to causation, which is to be determined by the court pursuant to § 287 ZPO, is inadmissible.

For the same reasons as the third claim, this claim also lacks the necessary certainty.

Moreover, the application is also unfounded for the reasons set out in section I.2.

## VI. Determination of partial settlement

The request made at the hearing on March 19, 2025 for a declaration of partial settlement - as such, the partial declaration of settlement of the action is to be interpreted - is unfounded, as the original action was not justified at the time of the event giving rise to settlement for the reasons set out in section I.2.

### C.

The decision on costs is based on Section 97 ZPO.

The decision on provisional enforceability follows from Sections 708 No. 11, 713 in conjunction with 544 para. 2 no. 1 ZPO.

The appeal is not permitted as the requirements of Section 543 (2) ZPO are not met. The rejection of the appeal is based on an extensive and complex assessment of the evidence gathered and therefore represents an individual case decision. Therefore, neither the further development of the law nor the safeguarding of uniform case law requires a decision by the Federal Court of Justice.

The amount in dispute for the appeal instance is set at a total of

was set. From an economic point of view, applications 1 to 5 concern the same object, so that the highest value is decisive in accordance with Section 45 (1) sentence 3 GKG. The highest value is the (alternatively submitted) application for payment under 5, which is quantified at A further is attributable to the - extremely alternatively submitted - application under 6 (application for payment).

The amount in dispute for the period up to 17.03.2025 is set at  $\longrightarrow$  Of this amount, is attributable to the application for a declaratory judgment (0.47% of  $\implies$  x 80%) and  $\implies$  to the application for payment, which has now been filed as the second main application. The auxiliary applications have no economic value of their own.

From 18.03.2025, the amount in dispute is set at (0.38%) of (0.38%) of (0.38%) is attributable to the application for a declaratory judgment and (0.38%) to the application for payment.





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