Carbon Majors in Brazilian Courts

Brazilian Prosecutors Take Shell to Court for a Share of a Flood

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On October 9, 2026, Brazil's Federal Prosecutor's Office and a nonprofit environmental association, Instituto Preservar, sued Shell Brasil Petróleo Ltda. for damages caused by the April and May 2024 floods in my home state of Rio Grande do Sul. The case, a public civil action (*Ação Civil Pública* No. 5069002-52.2026.4.04.7100), is pending before the Centre for the Processing of Disputes Associated with the 2024 Rio Grande do Sul Climate Catastrophe, a specialized unit of the federal courts in Porto Alegre. The extreme rainfall that began in late April caused what the World Meteorological Organization called Brazil's worst climate-related disaster, killing more than 180 people and displacing about 600,000.

As I am arguing in a forthcoming article on "Climate Disaster Litigation", in the immediate aftermath of the 2024 floods we saw claims I characterize as "multidirectional", mostly aimed at the government, with the notable absence of cases with a public plaintiff and a private defendant. At a recent talk on climate attribution science, I observed that a plausible deterrent for such a structural case was the missing science, in particular end-to-end attribution, since Brazilian law provides the standing, the remedies, and the access to courts that such a claim requires. The filing now places Brazil among the jurisdictions where public enforcers sue fossil fuel producers, which the litigation over the 2024 floods had not previously included. It also offers a concrete setting for the interplay between the causal nexus of Brazilian environmental liability and the attribution of a climate disaster to an emitter.

The claim

The plaintiffs invoke the National Environmental Policy Act (Law 6,938/1981), which makes liability for environmental damage strict. The Superior Court of Justice, Brazil's highest court for federal non-constitutional law, has held in a binding repetitive appeal that this liability follows an "integral risk" theory (REsp 1.374.284/MG). Under that theory, the defendant cannot invoke force majeure, meaning an unforeseeable and unavoidable event, or the act of a third party. The statute also defines as a polluter anyone directly or indirectly responsible for a polluting activity, and the plaintiffs argue that Shell Brasil qualifies through its own production in Brazil and through its place in a global corporate group. The petition seeks an initial estimate of R$270.5 million for material damages, to be quantified after judgment, and the same amount for collective moral damages, a total of R$541 million or about US$108 million. It asks that the money go to a dedicated fund under judicial supervision, a model drawn from the reparation processes after the Mariana and Brumadinho dam collapses, and it requests no interim injunction.

The petition explains the choice of defendant through Carbon Majors, a public database of the historical emissions of fossil fuel and cement producers. The database attributes to the Shell group 2.02 percent of cumulative fossil fuel and cement CO2 emissions since 1854, the ninth largest share among all entities it covers. The petition also describes Shell Brasil as the second-largest oil producer in Brazil. It does not discuss Petrobras, the state-controlled company and Brazil's largest oil producer, whose cumulative share in the Carbon Majors table annexed to the petition is 0.58 percent.

The petition converts these data into a sum of money through a formula, taking the R$111.6 billion that the federal government allocated to Rio Grande do Sul after the floods and multiplying it by 12 percent, the increase in rainfall intensity reported in a study by

Clarke and others published in January 2026. It then multiplies the result by the group's 2.02 percent share of emissions. The product, 0.2424 percent of the base, is the amount sought for material damages. The petition states that no method available in the present state of knowledge converts an increase in rainfall exactly into a fraction of damage and presents the multiplication as a legal criterion, supported among other authorities by the 2025 judgment in *Lliuya v. RWE*, which dismissed the claim but accepted proportional liability in principle. This formula serves here as a canvas against which the question of causation can be examined.

Brazil joins the trend

The Federal Prosecutor's Office has been described as the first national public prosecutor to sue an oil major over a climate disaster, a distinction that mostly reflects the difference between Brazilian and US federalism and standing rules. In the US cases, the plaintiffs are states, counties and cities, and in Brazil a federal body litigates in a federal court. Since 2017, US states, counties and cities have sued oil and gas companies over the costs of climate change, among them Multnomah County in a suit over the 2021 heat dome that, it alleges, killed 69 people in the county. The more meaningful point is that Brazil finally has a climate disaster case brought by a public attorney against a carbon major.

The US suits generally rest on state law and allege nuisance, failure to warn, or consumer deception, which require the plaintiff to prove wrongful conduct, such as an inadequate warning or a deceptive statement. The Brazilian petition rests on strict liability under a national statute and, under the integral risk theory, faces a defendant who cannot rely on force majeure. The petition nonetheless uses a type of evidence that also appears in the US suits, namely the company's own knowledge. It cites Shell's internal 1986 report and its 1991 film *Climate of Concern* to show that the company knew the risk of floods and extreme weather, and it relies on that evidence against the force majeure defense and in setting the amount of moral damages.

The fate of the US suits depends in large part on *Suncor Energy v. Boulder County*. The Supreme Court granted review in February 2026, heard argument on October 5 and has not yet ruled. The case asks whether federal law precludes state-law claims for injuries allegedly caused by the effects of greenhouse gas emissions on the global climate. That question should not arise in the same form in Brazil, because the petition rests on a national statute applied by a federal court. The Brazilian case will therefore test the trend under a different legal structure from the one under review in Washington.

Two tracks of liability

The litigation over the floods has been multidirectional, with public and private plaintiffs and, until this filing, public defendants. The Federal Prosecutor's Office sued the federal government, the state and nine municipalities of the Taquari-Antas basin in a structural action seeking measures to prevent new disasters (No. 5001898-69.2024.4.04.7114). The Rio Grande do Sul state prosecutors sued Porto Alegre over its flood protection system and claimed R$50 million in collective moral damages. That claim has already been decided at first instance, and the court rejected the municipality's force majeure defense. Two private associations sued the federal government for R$15 billion, and a federal court dismissed the case for lack of standing.

These claims rest on what I call foreseeability liability. The defendant answers because it failed to prepare for, prevent or respond to a disaster whose risk was foreseeable, whether or not it contributed to the emissions behind that risk. Event attribution has a supporting role on this track. The rapid study by World Weather Attribution found that climate change made the rainfall more than twice as likely and that forecasts were available nearly a week ahead, which weakens the argument that the event was unforeseeable.

The claim against Shell Brasil rests on the other track, which I call emissions liability. The defendant answers because its emissions contributed to the warming that intensified the event. This track asks more of the science, because the claimant must link

the event to the warming and the warming to the defendant. With this petition, the multidirectional pattern now includes a private defendant on the emissions track.

Nexus and attribution

Brazilian environmental liability usually asks whether a specific activity caused specific degradation. The Superior Court of Justice relaxes that inquiry when several polluters contribute, asking whether the conduct bears on the duty to avoid or mitigate the harm (AREsp 1.945.714/SC), and it reverses the burden of proof in environmental cases (Súmula 618). Climate causation works differently, because the harm runs through the global climate system and through an event whose occurrence is probabilistic. Attribution science therefore performs two tasks in an emissions claim: it establishes a probabilistic link between emissions and the event, which a Brazilian judge can receive as causal nexus, and also supplies a share, which can work as a key for apportioning the damages.

The petition assigns each task to a different source and states both in the vocabulary of causal nexus. The event study provides the link, reporting that the rainfall became about twice as likely, with uncertainty ranges from 0.06 to 4,200 for the probability ratio and from minus 13 to plus 43 percent for intensity, while Carbon Majors provides the share. An expert opinion annexed to the petition states that quantifying the losses attributable to the warming would require a specific analysis connecting emissions, precipitation, flooding and losses, and it cites the end-to-end method of Callahan and Mankin, which links company emissions to warming, extreme heat and economic damages.

The case therefore tests whether Brazilian law treats an end-to-end analysis of this flood, connecting the defendant's emissions to the resulting losses, as a threshold requirement or as a refinement of proof that a legal criterion can replace under strict liability. The court will also have to decide how emissions attributed to a global group can be apportioned to its Brazilian subsidiary, and whether an increase in rainfall intensity can stand for a share of the damage. The defendant's response and the court's answers will show whether a carbon major's share of cumulative emissions can serve in Brazilian courts as the key for apportioning the cost of a disaster.

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