The Volcanic Asymmetry

(or the Question of Permanent Sovereignty over Natural Disasters)

Abstract: It is a standard assumption of international law and a largely unquestioned fact in political philosophy that nation-states hold full sovereignty over their natural resources – a sovereignty that includes both jurisdictional powers and ownership rights over them. While statists claim that countries ought to get the full benefits generated by these resources (which is actually what happens in the world today), cosmopolitans have questioned this position and have proposed that these benefits be totally or at least partially shared. No one, however, has taken notice of this curious asymmetry: that when it comes to the costs generated by natural resources (for example, by a volcanic eruption), each country affected is supposed to clean up the mess. In other words, no one expects the owner/controller of the natural resource in question to compensate those affected beyond its borders, even though the cause of their troubles lies within the former's jurisdiction. I call this the “Volcanic Asymmetry” and, in this article, I present four arguments on its behalf and show why they fail. I then sketch two alternatives to eliminate it, and conclude with some thoughts on how this asymmetry reveals at bottom two things: on the one hand, the insufficiency of statist theories when it comes to justifying the current sovereignty of States over natural resources, and consequently the global territorial framework as a whole; and, on the other hand, the challenging practical difficulties that would be encountered by cosmopolitans if the benefits and burdens of natural resources were to be distributed across the board.
On the 3rd of June 2011, the activity in the volcanic complex Puyehue-Cordón Caulle in Southern Chile reached its highest level of alert. The next morning, as the eruption started, 3,500 small farmers and their families had to be evacuated from the surrounding areas. A billowing ash cloud rose twelve kilometers high in the sky, a stunning image that the media quickly spread around the world. But not only did the spectacular pictures of the eruption traverse the globe. So did the ashes themselves, carried by strong winds eastward to neighboring Argentina and further, to Uruguay, Paraguay, Brazil, the Falkland Islands, South Africa, Australia and New Zealand. By June 18th, the ash cloud had finalized its world tour, with highly disruptive consequences for the countries affected by its trail. In Argentina, the eruption triggered strong thunderstorms in the neighboring cities and, after five years of drought, the volcanic ash destroyed what was left of pasture land, putting 750,000 sheep and 60,000 cattle in danger. The ash also caused power outages and forced the cancellation of hundreds of flights as, if sucked into engines, it could eventually cause them to fail. Faced with the emergency, the Argentinian government quickly announced a plan to supply 2.41 billion dollars to the 1,400 farmers and businesses affected, as well as doubling their social benefits and deferring their tax payments. Seven billion dollars were also assigned purely for the cleanup. All around the Southern hemisphere, flight cancellations brought chaos to the airports, with thousands of passengers stranded. In Australia alone, the main airlines reported losses of 32 million dollars. Paradoxically, Chile was the last to suffer the effects of the volcanic cloud, with only minor disruptions in its flight schedules.

One year later, the most affected cities in Argentina were still recovering. After months under the ashes, the inhabitants of Villa la Angostura had to clean up five million cubic meters of volcanic debris. They estimated losses of 60 million dollars as tourism, the main economic activity in the area, declined drastically. In Chile, meanwhile, agriculture, cattle raising and the flourishing tourism industry in the area around Puyehue-El Caulle quickly returned to normal. National and foreign visitors (many from Argentina and Brazil) returned to enjoy the famous hot springs in the nearby area, the source of which is the same volcanic fissure that caused havoc. Moreover, as part of the strategic plan to search for new sources of energy, Puyehue-Cordón Caulle remained one of the major areas of geothermal exploration. Who knows whether in the future Chile might even install a geothermal power plant there, to supply the energy needs of Chileans and maybe even Argentinians on the other side of the border.
As it is usually the case when confronted with the unbridled forces of nature, the general public enjoyed the spectacular images and lamented the transnational chaos, while those affected relied on the help of their respective governments and insurance companies – or else had to clean up the mess all on their own. Although the volcano that caused the trouble lay wholly in Chilean territory, the Chileans neither thought of compensating those affected outside their boundaries nor did the latter think of demanding anything of the sort. I call this the 'Volcanic Asymmetry', and present it thus: Why do we take for granted that countries are in no way responsible for the harms generated by the natural resources within their jurisdictions, but grant them the right to control, use and profit exclusively from the benefits derived from them? In other words, why do we assign to countries rights to the positive utilities from the natural resources under their jurisdiction, but hold them under no duty to bear costs for the negative utilities generated by those resources for those beyond their borders?

That countries may freely enjoy the benefits of the natural resources within their jurisdictions is a standard assumption in international law. One key document is the 1962 UN General Assembly Resolution 1803, entitled 'Permanent Sovereignty over Natural Resources'. The Charter of Economic Rights and Duties of States from 1974, meanwhile, establishes that “[e]very state has and shall freely exercise full permanent sovereignty, including possession, use and disposal, over all its wealth, natural resources and economic activities,” and the International Covenant on Economic, Social and Cultural Rights from 1976 underlines that “[a]ll peoples may, for their own ends, freely dispose of their natural wealth and resources.”

At the same time, there are international documents that leave the door open for a more demanding interpretation – one whereby states should not only take the profits, but also the responsibility for the effects that these resources may bring about. Thus, Principle 21 of the Stockholm Declaration of 1972 affirms that “states have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction.” To be sure, the spirit in which this passage was conceived presumably understood the “activities within [the state's] jurisdiction or control” to be human, and not animal, vegetable or geological. It is not implausible, however, to ask why these other options should not also
be incorporated within this framework, especially given the damages and high costs that may be incurred due to those, by public and private agents not only domestically but also across borders.

As for political philosophy, this implication has been largely overlooked both by statist and cosmopolitan theorists. I understand statists, on the one hand, as those who hold the nation-state as the relevant political (and sometimes also moral) actors for the purposes of distributive justice, and advocate full or almost full sovereignty over the natural resources in their territories in order to achieve this aim and others – like securing the basic rights and the self-determination of the people, promoting the social order, etc. When it comes to accepting responsibilities when these same resources provoke undesirable effects beyond their premises, however, their silence is telling. I understand cosmopolitans, on the other hand, to claim that territorial borders ought to be morally (and maybe also legally) irrelevant for the achievement of distributive justice at the global level, and propose different ways of sharing at least partially, if not wholly, the profits derived from natural resources that countries happen to control. Curiously enough, however, they too have neglected the question of cost-sharing when it comes to unfortunate events produced by natural resources within states' jurisdictions. But if we are willing to share the benefits derived from a country's geothermal energy, for example, why not also be willing to share the costs when the same volcano that heats the water enters into eruption?

In the first part of the article, I present four arguments that may be invoked to justify the existence of the Volcanic Asymmetry and show why they fail. The first is that, just like in private property regimes, natural resources ought to be normatively distinguished from natural disasters; in other words, that Facts of God should be distinguished from Acts of God. The second is that there is no Asymmetry, but merely a misunderstanding: what matters in terms of state responsibility is where the resources are or events happen, and not whence they originate. A third argument is that, by improving them, countries come to deserve control over their resources, while this is not the case with events like volcanic eruptions, which happen independently of any human intervention. A fourth argument appeals to efficiency: in order to fulfill some basic functions, states require to reap the benefits of their natural resources, while sharing the burdens produced by natural disasters among all those affected makes more sense for the same purposes. In the second part, I present two ways of getting rid of the Asymmetry, by fully internalizing or externalizing both the benefits and costs associated with natural resources. I conclude that neither is satisfactory and briefly point to an
intermediate path.

Before proceeding, two warnings are in place. First, in presenting the arguments for upholding the Asymmetry, I am not reproducing what actual theorists have said on the matter (as I already mentioned, they have been dead silent on this topic), but I rather suggest what they may say by extrapolating from the reasons offered to defend the system as it stands. Second, because my aim is more critical than constructive, I do not intend to give a solution to the Asymmetry, but something more modest: to highlight how this curious logical inconsistency in current theories and practice of territorial and resource rights serves to uncover their at least partial lack of justification. I thus do not purport to offer any concrete prescriptions or guidelines, but only point in the direction where I think these may be found, on the hope that other theorists and especially policy-makers will further juggle with them.

Regarding terminology, I understand natural resources hereinafter as external “natural assets (raw materials) occurring in nature that can be used for economic production or consumption.” In this I follow the convention in international law and do not distinguish natural resources from natural wealth (the environment whence these resources are obtained). I take this broad category to include both renewable and non-renewable resources – that is, animal as well as vegetable organisms and systems, as well as mineral, geological and geographical riches. Moreover, I use states, nation-states and countries as synonyms and understand them to refer to the relevant political agents who currently claim sovereignty over most of the world's natural resources. Finally, I take sovereignty to include jurisdictional powers and/or ownership rights. Although this distinction, as Cara Nine has shown, is relevant in other contexts, for the purposes of this discussion it will not hurt to keep both kinds of rights under the same tag.

I. Four arguments for keeping the Asymmetry and why they fail

In this section, I consider four arguments that may be used to support the Asymmetry, and show why I think they should be dismissed.
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1. Facts of God vs. Acts of God, or natural resources vs. natural disasters

A first defense of the Asymmetry could be stated in the following manner: contrary to what I suggest, the Asymmetry is neither curious nor problematic, but makes all the sense in the world – so much so that it has existed in domestic private property regimes at least since Roman times. xi What this appeals to is what in the law of contracts is known as an Act of God: because natural disasters are unpredictable occurrences outside human control, no one in particular can be held responsible for them. Thus, when an event of this kind prevents private parties in a contract from fulfilling their obligations, they do not have to pay the costs that others incur due to their breach.

Four individually necessary and jointly sufficient conditions have to be met for something to count as an Act of God. To take the English law, Acts of God i) involve no human agent, ii) it is not realistic to guard against them, iii) they are due to natural causes directly and exclusively, and iv) they could not have been prevented by any amount of foresight, planning or care. xii So when a volcano erupts, no one (except, of course, God) is held responsible for the eruption and the costs are left to lie with each of those affected. Both in private property and in national sovereignty regimes, then, the distinction between Acts and Facts of God carries normative weight: the former are fleeting, unpredictable occurrences over which human agents have no control and cannot therefore be accountable for; the latter are permanent features that remain more or less constant throughout time, the benefits of which may be reaped by their owners/controllers. States may then be said to enjoy full sovereignty over their stable natural resources (with the rights and duties that this implies), but not over their erratic and sudden natural events, under which natural disasters are subsumed.

It could be further argued that this way of dividing Acts and Facts actually gives the right incentives to property owners/controllers. Because under this arrangement they will feel protected and secure, they will be more keen on investing on this type of assets and on improving them, therefore contributing to economic growth and to the general prosperity of society. On the contrary, if they had to pay compensation for the damages produced by every natural event that happened within their premises, this would compromise much of these good effects. For, why buy land and take the effort to make it productive, when any thunderstorm may turn it into a liability? And how to feel secure when one's property may end up saddling one with onerous responsibilities that one may not even be able to discharge?
To this I respond two things. First, there are two relevant differences between private and public ownership/control of resources that may stand as good reasons to accept the Asymmetry in the former, but not in the latter case. They concern the form and the content of the rights involved.

Regarding the form, private ownership of natural resources is a first-order right limited in several ways. Owners have to pay taxes and/or royalties for administering certain resources and reaping their benefits (such as minerals), and there are tight restrictions on what they may or may not do in terms of managing their property – like the public regulation of private forest practices. Furthermore, regulations on private land-use, like servitudes, can restrain owners from using their property in a manner that would affect third parties, while through the law of eminent domain private land may simply be taken away for public use following compensation. In other words, there is no such thing as 'Full Permanent Private Property over Natural Resources'. By contrast, states possess jurisdictional rights to create and modify property laws at their will. These second-order or meta-rights allow them to decide the contours and limits of what they own and the conditions under which they own it – and everyone else for that matter. Thus, when it comes to property over natural resources states are, so to speak, judge and jury. This greater liberty, one may think, should correlate with greater responsibility. And what may sound like too onerous a requirement for private owners (who have no say over the form of their ownership) might not be so when it comes to states.

A second difference that stems from the latter relates to the content of these rights. Private property over natural resources is far from comprehensive. Excepting the U.S., underground elements like minerals, oil and gas typically do not belong to private agents, but to the state, who may then transfer their use and administration to the former through leases or other legal forms. Furthermore, not even in the U.S. is there such a thing as private ownership of the airspace above one's terrestrial domains, or of the adjacent coastline and sea. This means that upholding the Asymmetry in private property regimes actually does make sense, given that there is an Asymmetry in what one may come to own in the first place. To put it differently, this means that even if one demanded Symmetry at the private level, this would not require owners to take full responsibility for every single natural event occurring in their premises. At the very least, they would not need to worry about compensating for the effects of lightning coming from the skies, or from volcanic eruptions or earthquakes starting under their land (regarding the last two phenomena, I concede that the U.S. case would have to be examined independently). Consequently, the good effects
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purportedly promoted by the institution of private property over natural resources—above all, a greater sense of security and the promotion of human industry—would be kept in place. When it comes to countries, on the contrary, demanding Symmetry would presumably have to be much more demanding, given their much more extensive list of natural assets.

If these are not deemed to be good enough reasons to keep the Asymmetry at the private, but not at the national level, a second line of response would be to say that maybe yes, the institution of private property in this realm should be questioned too. While developing an argument to this effect would take this article in a different direction, one might think of alternative regimes—like guardianship or long-term concession contracts—that could arguably guarantee even better outcomes (especially in terms of conservation and sustainability), than those promoted by the current system.

All I have said so far recognizes that the difference between Acts and Facts of God—or between resources and events—does carry some normative weight. But what if it didn’t? Natural resources, after all, can easily be re-described as Acts of God. Ceteris paribus, if volcanic eruptions and other natural events are no special responsibility of the country where they happen to happen because the latter has no control over their happening, so too should oil reserves, for example, be no special responsibility of the country where they happen to be found, given that the latter had no control over their being there either. In other words, if ought implies can, then cannot implies ought not to. Because countries can control neither their natural resources nor their natural events, they ought not to be considered sovereign over them—soverignty, after all, means precisely 'supremacy in respect of power, domination or rank', 'supreme dominion, authority or rule'; 'freedom from external control' or 'controlling influence', attributes which are all clearly lacking in this case. (This is, unless one wants to make a distinction between actual and metaphoric or symbolic sovereignty, and say that states enjoy some sort of the latter rather than the former. I doubt, however, that advocates of this argument would accept this idea.)

Moreover, drawing a line between natural Acts and Facts is fallacious, in the case of recurring Acts the recurrence of which is a Fact. The volcano that has erupted before will, sure and certain, erupt again sooner or later. And some natural items that are treated as Facts could, under the conditions specified above, be re-described as Acts, like fleeting shoals of fish that come and go through states' Exclusive Economic Zones (which to my knowledge no fishing state is willing to give up). Furthermore, while it is true that certain resources may have been in one's territory for a long time,
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how valuable they are depends on technology and is thus also a fleeting-like phenomenon – this is the case of certain minerals the exploitation of which started only after electronic products had been invented.

Therefore, if the normative line between resources and events, or between Facts and Acts, is to be more than a stipulation, other arguments need to be offered on its behalf. To these I now turn.

2. Where, not whence

Advocates of the current regime could agree with what I have said so far but complain that there is no Asymmetry here, but merely a misunderstanding. Countries are indeed obliged to behave symmetrically regarding the normative treatment of natural benefits and costs, so long as these are or take place within their borders. Just look at Japan's anti-seismic constructions, Hawaii's tsunami warning system, and Mexico's evacuation plans for the thousands living in the skirts of moody Popocatépetl! The morally required Symmetry is indeed respected, then, but at the domestic level: whatever happens/is within their borders is their problem or their blessing; but whatever happens/is outside those borders is the neighbor's business. In other words, what matters normatively is where the benefit or cost is felt; not whence it arose.

One could say that the reason for this is that, because states coerce their subjects, it is to them only that they owe justification for the distribution of benefits and costs derived from their natural resources. Michael Blake, for example, has advanced the thesis that state coercion justifies the application of relative principles of justice – mainly equality – among its citizens, leaving absolute principles of justice (i.e. some sort of minimal economic sufficiency) for the global arena. In other words, given that it has the potential to undermine the individual autonomy of its subjects, the state owes them, in order to be legitimate, a justification regarding the distribution of benefits and burdens within that shared basic structure – a justification that it does not owe to foreigners who are not under its coercion. Among these benefits and burdens, Blake could say, are those derived from the natural resources under its control.

This argument, however, disregards the fact that, when countries enforce their rights over their resources, they do so not only upon their citizens, but also upon anyone who tries to infringe those rights. Moreover, it leaves unexplained why states ought to aid their citizens more than anyone else
affected by an event like a volcanic eruption: after all, state coercion has no part to play here.

To this it should be added that this line of argument begs the question. Once borders, state coercion over people and state control over resources have been put in place, it might make a lot of sense to argue for equality for compatriots and economic sufficiency for everyone. But why accept these structures in the first place? Following Arash Abizadeh\textsuperscript{vii}, one could point out that, by upholding an interstate system of border coercion that is global in scope and that imposes an economic regime, states owe much more than mere economic sufficiency to everyone. By stipulating where the boundaries lie, and over whom and what kinds of things states ought to exercise jurisdiction, this position appears to get matters back to front, becoming “methodologically suspect” – as Simon Caney has put it.\textsuperscript{viii} Much more needs to be said, then, to successfully invoke this argument as a justification for keeping the Asymmetry at the trans-national level.

3. Value-adding labor

A third argument that may be given in support of the Volcanic Asymmetry has to do with the desert of the relevant agents. This argument claims that, by adding material and/or cultural value to the resources within their geographical areas through occupation and transformation, states acquire a legitimate claim over those resources, which includes enjoying the economic profits from their use and sale and being responsible for the costs they knowingly and willingly impose beyond borders. When it comes to natural disasters, on the contrary, states have not intervened in their happening in any way, and should thus be exempt from paying the full costs derived from them.

But three objections may be raised against the argument for added value.\textsuperscript{ix} First, even if improvement is made to the resources in question, it is not clear that this improvement is attributable to the national community as a whole: presumably, not everyone directly or indirectly enjoying the profits will have contributed equally, while some (maybe most of them) will not have contributed at all. Second, the degree to which the resources are transformed will vary greatly, with some of them undergoing very little or no transformation. Third, even if we grant these claims based on some sort of improvement, it is not obvious that the best way to respond to them is by allocating exclusive and full resource rights to states.

Elaborating on the second point, one might add that, if we accept this reasoning, the outcome would
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be a much more restricted sovereignty than what the status quo presently allows. Many countries
today do not add any relevant value to a big part of the natural wealth within their boundaries, but
still have jurisdictional powers and ownership rights over it. This is especially clear in the case of
those whose national income depends on granting prospective licenses and mining leases to private
companies for the exploitation of raw materials such as minerals, oil and gas. Through what Thomas
Pogge has called the 'International Resource Privilege', any internationally recognized government
(democratic or not) has the power to effect legal transfers of ownership rights in natural resources,
which are then upheld and enforced by international law and institutions. In this way, without
having invested any time or effort (i.e. having done nothing to deserve them), states still hold full
control over them.

To be consistent, then, endorsing the value-adding argument in defense of the Volcanic Asymmetry
would amount to admitting that states have no obligations toward outsiders in cases such as volcanic
eruptions, at the cost of drastically redrawing the contours of current national sovereignty over
natural resources, turning it into something much more moderate than what it is today: given that
a considerable part of these resources has not been transformed in the relevant sense, this would
imply giving them a different juridisdictional and ownership status. A further problem with this
argument is that it may give countries a perverse incentive to deplete their natural wealth in order
to acquire a claim over it, at a stage in human history where everything suggests that we should be
moving in the opposite direction.

4. More efficient

A fourth defense of the Volcanic Asymmetry appeals to instrumental reasons, or what in the
literature on territorial rights are referred to as 'functionalist' arguments. Under this justification,
states should enjoy full permanent sovereignty over their natural resources in order to perform
certain key functions – among them, satisfying the basic needs of their members, guaranteeing their
self-determination, implanting justice, promoting the social order, and conserving these natural
assets in the long-term, for the enjoyment of future generations. On the contrary, because natural
disasters do not contribute in any way to achieve these goals but detract states from reaching them,
it makes sense to let the latter share the costs associated with them with whomever they fall upon.
The problem is that none of these functionalist arguments justifies full permanent sovereignty. To satisfy the basic needs of their members, many – if not most – countries would do just as well by keeping a much more limited portion of territory and control over resources. Regarding self-determination, there is no reason to think that thorough control over natural resources is a condition for its achievement, and that anything less than that would undermine it: this would be true, maybe, if different nations were under different jurisdictional regimes, but this is not the case. Implanting justice in the territory and promoting the social order, again, may be good reasons to assign to countries full permanent sovereignty over certain geographical areas – but this argument would have to be stretched unduly in order to justify current borders. Finally, the idea that states are the best stewards of natural resources and that any alternative arrangement would lead to worse outcomes (like deterioration and over-use) is an empirical claim that has been repeatedly contested with actual evidence.

At the same time, it is not obvious that it is more efficient to make each of those affected by natural disasters to pay for the costs incurred. As will be seen in the next section, a better fit might be to set up a supra-national fund, for example, to which countries would contribute according to their involvement and capacity, or to establish bilateral or multilateral arrangements between those who are most likely to suffer from certain specific natural events.

II. Rethinking sovereignty over natural resources

So what are the alternatives? What would a world where the Volcanic Asymmetry were eliminated look like? In what follows, I present the full internalization and full externalization options and their problems, and conclude by suggesting an intermediate path.

1. Full internalization of costs and benefits: absurd, impracticable and unfair

For those who accept the current full internalization of the benefits generated by natural resources, eliminating the Asymmetry would amount to accepting also full internalization of the costs generated by them; to wit, Permanent Sovereignty over Natural Disasters. This means that countries would have to compensate those outside their borders for damages caused by their natural resources and pay back the benefits they received from those belonging to others. In the initial example, Chile would acquire obligations toward Argentinians, South Africans, Australians, New Zealanders, and
everyone else affected by the havoc produced by the Puyehue-Caulle Complex. Beyond that, and assuming that there were a global carbon emissions reduction scheme in place, Chileans would probably also have to buy some extra credit to compensate for the large amounts of gas thrown into the atmosphere during the eruption – unless they persuaded the world that the ashes had actually helped to avert global warming in the year in question, by preventing sunlight from reaching the earth's surface. Contrariwise, if the Chilean ashes had acted as efficient soil fertilizers helping Argentinian farmers to obtain an extra-luscious harvest, then the latter should compensate the former in some way – for instance, by exporting their agricultural produce at a better price.

I present three problems of this approach. First, it leads to a reductio. Second, it is impracticable. And third, even if it were practicable, it would be unfair for those who are already among the worse off.

The charge that internalizing the full costs generated by the natural resources under one's sovereignty leads to a reductio could be expressed in the following way: by erasing the normative distinction between resources and disasters (or, more generally, events), the question arises as to how to deal with other geological occurrences, like earthquakes and tsunamis, and what to do about related factors such as climate and geographical location. Regarding geological events, and given that permanent national sovereignty is exercised over the subsoil, should the country where the epicenter of an earthquake is located compensate the neighbors affected by the tremor? And if a tsunami is triggered after the earthquake, should the country in question also compensate those affected by the violent waves hitting their coasts? Regarding climatic and geographical conditions, should countries with benign climates compensate those with harsher ones? Should landlocked countries be compensated by those with coastal access, and those prone to malaria outbursts be compensated by those free from tropical diseases? In the case of destructive weather events, and given that countries are also sovereign over the airspace above them, should those above which hurricanes are formed compensate others affected by their trail of destruction? 'Answering these questions in the positive would surely lead to preposterous scenarios!', the objection would go.

To this, let me say that I agree, but let me also add that the current state of affairs, where countries are in full control of the natural wealth that is or happens under their sovereignty, in many (if not most) cases due to sheer luck, is not necessarily less preposterous. That this arrangement has solved a collective action problem at the global level, and that it is recognized, endorsed and respected by the main actors in the international arena are, I concede, strong and tempting reasons for wanting to
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keep it as it is. However, I have shown in the first part that this arrangement may be at most partially, but not wholly justified. If accepting full internalization leads to a reductio, then maybe the proper question to ask is whether, in light of this, we ought not to revise the entrenched practice of making states wholly responsible only for what is good, but not for what is bad, among the natural resources over which they claim control.

A second problem is that, even if we accepted full internalization in principle, it would still be wholly impracticable. For one thing, it would be just too hard to measure the good and bad effects produced by, say, a volcanic eruption, an earthquake or a tsunami, not to mention the difficulties of quantifying the good and bad effects brought about by all climatic, geographic and weather conditions. Another practical aspect that seems insurmountable concerns the distribution of costs and benefits among different kinds of agents, from individuals to companies to states as a whole. Although compensation mechanisms between states and individuals, states and companies, and companies and individuals already exist to some extent, claims in this new scenario would be so intricate and their number would be so large that they would require a Kafkaesque bureaucratic apparatus to deal with them.

A third problem is that, even if it were practicable, full internalization would be unfair for those countries situated over geological faults, volcanic and hurricane areas, etc., which are often not among the most developed but among the poorest countries in the world. Just think of the effects that such a policy would have on Central America, the Caribbean and South East Asia... not to mention little Iceland! A system under which they would end up having to compensate maybe even rich countries that, for the mere fact of being richer, will have much more property to lose, would indeed be extremely regressive.

Advocates of full internalization could point out here that, at least in the case of seismic and volcanic areas, together with the costs come the benefits. Seismic areas are normally packed with mineral reserves, among them gold, and volcanic areas usually have rich agricultural soils, mineral reserves and they are a massive source of geothermal energy. Therefore, it is not just losses that countries would incur by taking full responsibility over these resources and one could even argue that, in the long run, the permanent benefits of having them could outweigh the sporadic costs. But there are at least two objections to this response. One is that, due to what is known as the 'resource curse', the very possession of mineral resources may be disadvantageous and prevent these countries from
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developing stable democratic institutions and attaining economic prosperity.\textsuperscript{xxxii} The other is that, if it is fairness that one worries about, then surely a much more equitable solution would be to have resource-rich and resource-poor countries share both the costs and benefits associated with their natural resources – i.e., to opt for full externalization. I present this position next.

2. Full externalization of costs and benefits: a daunting enterprise?

If one takes a purist cosmopolitan line, eliminating the Volcanic Asymmetry would amount to accepting that not only the benefits, but also the costs derived from natural resources should be globally shared. So far, as was said at the outset, cosmopolitan theorists have focused on the former but ignored the latter. That the benefits from natural resources should be shared to some extent is the rationale behind Thomas Pogge's proposal for a Global Resource Dividend (GRD), whereby governments should be required to divert part of the profits from the use and/or sale of some of them to fulfill the basic needs of the world's poor.\textsuperscript{xxxiii} A more egalitarian proposal is Hillel Steiner's Unconditional Initial Capital Grant (UICG). On Steiner's view, in a fully appropriated world like ours, each person is entitled to an equal portion of the value of various natural resources – ranging from rain to genes. This non-paternalistic unconditional initial capital grant would originate in a fund where “all owners of natural resources must pool the value of what they own ... to an equal portion of which everyone everywhere has a moral right.”\textsuperscript{xxxiv}

As a necessary complement to their views, something like a Global Disasters Fund (GDF) should then also be put in place to cover for the costs generated by natural resources at the international level. This would be based on a principle not of charity or humanity, but of distributive justice.\textsuperscript{xxxv} (Whether this redistribution should be done while keeping nation-states in place, or whether a better fit would be to replace the whole post-Westphalian framework and start anew, is a point over which cosmopolitans are divided. This, however, does not affect the fundamental tenet from which they start: that the present possession of natural resources by states is at its root contingent and should not be an impediment in the way to global justice.)

In fact, the bases for a GDF already exist. Set up in 2000, the UN Trust Fund for Disaster Reduction finances the UN Office for Disaster Risk Reduction (UNISDR), whose main goal is the prevention, preparedness and mitigation of natural, human and technological hazards, and the coordination of
strategies directed toward this goal at the domestic, regional and international level. Of course, the GDF would not deal with human-caused disasters, and in that sense it would constitute a subsection of the UNISDR. Another relevant difference between the existing system and the proposed one would be, as I already mentioned, the main principle underlying its funding: while the current UN Trust Fund is made up entirely by voluntary contributions based on humanitarian grounds (with the European Commission, Sweden and the World Bank as the main donors at present), the GDF would be based on principles of distributive justice.

A first objection to this approach is that not everyone agrees that justice requires goods that people enjoy through luck to be redistributed – think, for example, of natural talents and beauty. From the fact that natural resources are 'undeserved' in the same way, then, it does not necessarily follow that they should be subject to global redistribution. But there are important differences between individual ownership of natural endowments and collective ownership of natural resources which suggest that, while one may be wary to demand redistribution of the former, this is not necessarily the case when it comes to the latter. Just to mention two: an individual talent is not worth much if it remains undeveloped. Even the most beautiful natural beauty has to invest a lot of time, effort and money in order to become a supermodel (those who believe that just a bit of lipstick will do are clearly out of touch with the demands of the current fashion industry); even the smartest people need to apply their intelligence in order to profit from it; triathlon champions are not born as such, and musical virtuosos only become so through hard training. On the contrary, countries can profit from their natural resources with no blood, toil, tears or sweat on their part. Second, as Charles Beitz has remarked, natural endowments 'come with us' (we have no say over having them or not), while countries have often appropriated resources that were 'out there' – something that, in a world of scarcity, makes others worse-off.

A second objection against global redistribution of the 'common perils of mankind' is that establishing a fund like the GDF would be just as impracticable as establishing a GRD, a UICG or any other instrument for global redistribution of the 'common heritage of mankind'. Because there are no coercive supra-national institutions of the kind needed to administer, maintain and enforce such instruments, these ideas ought to rest in peace. Moreover, because of the formidable difficulties in assessing gains and losses, it would be a daunting enterprise to attempt anything of the sort (just as daunting, indeed, as trying to implant full internalization). However, discarding an idea because it
seems impracticable and difficult to implement here and now may be an acceptable response from legal practitioners and policy makers but not from those theorizing about the moral and legal grounds of those practices and policies. Many ideas that at some point were thought impossible to carry out – like universal suffrage – are now a reality. That new international institutional structures and a novel understanding of sovereignty over natural resources would be necessary to eliminate the Volcanic Asymmetry at the global level should not deter us from thinking about the possibility and plausibility of this alternative, however practically challenging it may appear at first sight.xi

What I have said so far, however, is compatible with more, but not necessarily with full externalization. One might agree, after all, that the benefits and costs derived from the world's natural resources ought to be shared to a much greater extent than what they are today, without having to relinquish all special claims from individuals and/or collectives to particular geographical locations. Especially those who think that there is something to be said on behalf of attachment to a specific territory will probably agree that full externalization would be as much of an overreaction as full internalization.xii This points us in a third direction.

3. Somewhere in between

We live under a global system where the monopolistic sovereignty of states over the world's natural resources is still very much taken for granted both in international law and political philosophy. It may be sensible and convenient to draw normative lines that run as close as possible to the actual state of affairs, for certain purposes. But this is no excuse for failing to criticize and question what there is, pitting it against what there could and should be.xiii This, with all the more reason in a world where the current regime of resource rights has become increasingly contested by everyday actors such as indigenous communities, social and environmental groups and individual citizens.

My aim in this article has been to focus on a curious logical inconsistency like the Volcanic Asymmetry as a starting point to re-examine the different rationales that may be invoked to justify the doctrine of Permanent National Sovereignty over Natural Resources, and to suggest that none of them fits the bill. I have urged readers to look anew into some facts of the current world order to which we have tended to assign – without warrant, I suggest – normative weight. Those who wish to keep the Volcanic Asymmetry as it stands and not merely stipulate its existence, I claim, need to
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raise their voice on a series of theoretical issues and practical implications that they have said little about so far. Furthermore, I have underlined the moral relevance of cosmopolitan approaches, insofar as they entice us to think of alternative arrangements beyond the one we presently have. Though they seem more desirable for worse off countries and fairer overall, I have sketched nonetheless some of the difficulties that may prevent us from implementing them, especially in the short run. Although my purpose overall has been then to present a critique of the system as it stands, let me conclude by briefly pointing to where this ought to lead us.

First of all, taking into account the implications both of the full internalization and full externalization options should deter us from pursuing absolutist paths and to seek instead for middle ground. Given that at least two of the arguments presented on behalf of the Asymmetry – namely, the value-adding and the efficiency arguments – justify partial, but not full sovereignty over natural resources, it should not be hard for statist to endorse such an intermediate path. At the same time, given that fully cosmopolitan solutions tend to disregard the value of particular attachments created between individuals and/or peoples and the places they inhabit, and given that the latter seem to be fundamental in the construction of territorial and resource rights, theorists of these leanings should be happy to gradually start the quest for a more egalitarian global redistribution of benefits and costs associated to natural resources, and see how far it can be taken.

A good testing ground may be to begin by subjecting volcanic areas to a special international regime. Just as the High Seas and the ocean floor beneath them are currently part of the Global Commons, so could volcanoes join the list: owned by none, owned by all. And just as a supra-national body like the International Seabed Authority overviewes all mineral-related activities in the international seabed area beyond the Exclusive Economic Zones of states, an International Volcanic Authority (maybe under the tutelage of the existing UNISDR) could organize and control the profits arising from economic exploitation in these areas, while at the same time building a fund to cover for contingencies when they arise. This would represent one step forward in the way toward a different global territorial ordering, where natural resources are increasingly seen as part of the common patrimony of humanity, and where the benefits and costs they generate are shared accordingly. More importantly, it would help to show how plausible or implausible global distributive justice turns out to be in practice.

Last but not least, given the global environmental challenges lying ahead of us in terms of climate
change, decreasing biodiversity, air and water pollution, desertification, and depletion of marine resources due to contamination and over-fishing (among others), the question whether the current regime really helps to halt or slow down these threats is as timely as ever. If it turns out that it is not (as the actual scientific evidence increasingly suggests), this would be an additional reason to limit full state sovereignty over natural resources and to seek to diffuse it among different agents, both in the domestic and supra-national arena. Some incipient arrangements along these lines are already in place. At the domestic level, for example, the ILO Convention 169 gives indigenous communities a right to participate in the use, management and conservation of the resources pertaining to their lands, and requires nation-states to consult them before undertaking exploration or exploitation projects that could affect them. At the international level, meanwhile, agreements like the International Convention for the Regulation of Whaling, the Convention Concerning the Protection of the World Cultural and Natural Heritage, and the Kyoto Protocol require signatory states to commit themselves to the fulfillment of certain minimal standards regarding natural resources. Rather than starting anew, then, opting for partial state sovereignty would consist in deepening and perfecting existing structures such as these, and in gradually implementing others maybe taking the latter as a model. A more dispersed, democratic and multi-level regime seems to be the way forward not only for the sake of logical consistency but, more importantly, for the sake of a fairer system of global governance of natural resources.

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Stockholm Declaration (1972), available at http://www.unep.org/Documents.Multilingual/Default.asp?documentid=97&articleid=1503. The Rio Declaration on Environment and Development, 20 years later, makes an almost identical claim: “States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.” Available at http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm, both accessed on the 4th July 2013.


This is leaving aside, of course, the natural effects brought about by human causes, most prominently anthropogenic climate change. In this topic, cosmopolitans have indeed said a lot. Cf. for example, Shue 1999 and Caney 2005.

There are two other arguments that may be invoked to defend the Asymmetry that I leave aside. One is to say that, customarily, countries have managed their affairs in this way and the result has been satisfactory. I do not think that much time needs to be spent rejecting custom as a normative reason, though, especially if one bears in mind that the idea of Permanent National Sovereignty over Natural Resources only crystallized as an internationally accepted doctrine after the Second World War. The other is to found the Asymmetry on some sort of special attachment between the people and the natural resources within their jurisdictions. If attachment is invoked, however, it would have to be acknowledged that people create special connections both with their ‘good' and 'bad' resources: suffice it to see the veneration for volcanoes in different cultures (cf. for example, Plunket and Uruñuela 1998). If invoked, then, this argument would challenge the Asymmetry rather than justifying it.


Jurisdictional powers include “the power to legislate, adjudicate, and enforce property rights in the region, including rules of taxation and the power to determine, through rule of law, the use of goods in that region; the power to legislate, adjudicate, and enforce rule regarding on-owned goods within a region, including the power to determine that ‘the people' have property rights over such goods; and the power to enter into treaties that alienate or transfer powers to another collective.” Ownership rights include the right of access, withdrawal, management, alienation and value-retention of the said resources. Cf. Nine 2012, p. 120.

The Roman law established that the parties to a contract should be exempt from obligations when something arose that “cannot be foreseen by human cognition, or which cannot be opposed by prevision. Such are floods, enemy attacks and fires” (Quod humano captu preaevideri non potest, anut cui previso non potest resisti. Tales sunt aquarum inundationes, incursus hostium, incendia).
In the U.S., the *force majeure* clause – which includes Acts of God as well as other uncontrollable events – appears in the *Restatement (Second) of Contracts*, §261 (1981), and establishes that, “where, after a contract is made, a party's performance is made impracticable without his fault by the occurrence of an event the non-occurrence of which was a basic assumption on which the contract was made, his duty to render that performance is discharged, unless the language or circumstances indicate the contrary.”


Some may object here that I am equivocating on the definition of 'control'. What I want to say – the objection would go – is not that countries do not control their natural resources: they actually do, by managing, overseeing and exploiting them. My point is rather that countries are not morally responsible for their natural resources and thereby do not deserve them, insofar as they did not control their creation. But sovereignty logically requires only the first, not the second kind of control. This line of argument, however, is problematic for two reasons: first, if humankind were ever able to control (in the sense of managing) natural occurrences like tornadoes or volcanic eruptions, advocates of this view would have to accept that countries are sovereign over these events too. Second, if sovereignty over natural resources depends on the countries’ ability to manage them, then current claims would have to be revised and would probably lead to a quite dramatic redrawing of borders – especially when countries delegate to others the exploitation of their natural resources.

I thank Alfonso Donoso for pointing this out.

Blake 2001. I thank David Axelsen for bringing this point to my attention.


I take these from Armstrong, forthcoming.

Pogge 2008, p. 119.

John Simmons makes a similar point with regard to Locke's theory of property: “the spirit of Locke's theory of property is ... consistent with allowing that modest common holdings of land can be legitimated by the exclusive use of the commons by society's members for gathering, recreation, or shared activities, independent of any 'common consent' to this that other societies may have given. What the spirit of Locke's account condemns ... is the familiar practice of States' declaring as the common property of their members (perhaps on the grounds of their manifest destiny) vast and unused spaces, simply to facilitate defense or future settlement and expansion” (Simmons 2001, pp. 314-315, his emphases).

This may not seem problematic in the case of minerals, for example, where one could dig them all up to then put them into a bank vault and let them rest there, not using them at all. In the case of renewable resources such as forests or fishing stock, however, it is difficult to imagine what adding value would amount to that did not involve irreversible transformation of some kind.

This last 'stewardship argument' is offered by Rawls for supporting state boundaries: “In this case the asset is the people's territory and its capacity to support them in perpetuity; and the agent is the people themselves as politically organized” (Rawls 1999, p. 39).

Moreover, this argument assumes that countries are dependent on their natural resources to achieve this end, although many prosperous national economies situated in resource-poor areas prove the contrary.

accessed on the 24th November 2013. That none of the functionalist arguments justifies the doctrine of full permanent sovereignty has been recently argued in a persuasive manner not only by out-and-out cosmopolitans, but also by statist-leaning theorists. Along these lines, Chris Armstrong has presented powerful arguments as to why this default position stands without adequate justification; Lea Ypi has proposed that the territorial rights of states (and within them, rights over natural resources) should only be granted provisionally and conditional on the commitment to establish a political authority to realize just reciprocal relations globally; Margaret Moore has advocated a much less robust control of natural resources by states and a duty of rich countries to redistribute part of their proceedings to the poor; and Cara Nine has suggested that only jurisdiction over resources, but not necessarily full ownership rights, is required by states for the purposes of administering justice (Cf. Armstrong forthcoming, Ypi 2012, Moore 2012 and Nine 2012).

Whether the responsible country should compensate the agents directly affected (for example, through cash transfers to the stranded passengers and the farmers and companies that suffered losses), or indirectly (through other arrangements with their respective governments) is an important practical question, but I will not attempt to answer it in this article.

Either way, the amount of the compensation would be nothing to worry about. Rough measurements indicate that the totality of volcanic eruptions in the world in one year barely represent around 1/135 of the total emissions produced by humans. Cf: http://www.abc.net.au/science/articles/2011/06/28/3255476.htm, accessed on the 2nd May 2013.

The economist Paul Collier, for example, has claimed that landlocked countries surrounded by poor neighbors have slim chances of getting out of poverty (Collier 2007, pp. 53-63). Cf. also Sachs and Malaney 2002, who correlate high incidence of malaria to persistent levels of poverty.

"Territorial sovereignty extends principally over land territory, the territorial sea appurtenant to the land, and the seabed and subsoil of the territorial sea ... In accordance with customary international law and the dictates of convenience, the airspace above and subsoil beneath State territory, are included in [this] category": Brownlie 2008, p. 105.


It has to be born in mind that this argument assumes a deterministic causality between being resource-rich and having a corrupt government and a fragile and under-developed economy. Counter-examples such as Norway, Australia and Chile, however, suggest that these factors are not always causally connected, even though sometimes they might be correlated. Cf. Wright and Czelusta 2004.


Steiner 2009, p. 6.

A separate question is to decide what kinds of costs generated by natural resources would be eligible for redistribution: would defective genes count? And bad climate? I do not attempt to answer this here.


I say 'not exclusively' because it would make sense to complement full externalization with other principles, like remedial responsibility based on the capacity of the agents; that is, responsibility to aid based on one's means, regardless of one's causal, moral or emotional connection to the harm being remedied (cf. Miller 2001).

If not fully, countries can profit at least partially from resources that they have done nothing to develop, by taxing and demanding royalties from those who do the hard work of training the engineers and personnel, developing new extractive techniques and building the infrastructure required to exploit them, among other things.

Cf. Beitz 1975, pp. 368-69. When it is not due to sheer luck, then, countries normally have the resources they have thanks to a history of conquest, colonization, forced displacement of native populations and unjust wars. None of these seems very appealing as an alternative foundation for a legitimate claim over natural resources.

As Simon Caney has suggested, questioning the existing global statist framework is neither irrelevant nor useless.
First, it is mistaken to assume that the status quo cannot be modified. Second, one of the functions of moral language is to candidly describe what there is, even if there is no chance of reforming it. And third, signaling that the current system of States is unjust or – to put it in the terms I have been using – asymmetrical, does have practical relevance, insofar as it affects individual attitudes to these entrenched institutions and puts in question the moral reasons to comply with what these institutions require from us (Cf. Caney 2008, p. 508).

Cf., for example, Avery Kolers, who criticizes full-blown cosmopolitan positions for turning land and natural resources into merely exchangeable goods, failing to acknowledge that our relationship with territory is bidirectional (Kolers 2012).

Elsewhere, I have referred to this tendency as the 'status quo fallacy' (Cf. Mancilla 2014).

This new supra-national authority could be the spearhead of a future GDF. Meanwhile, the new territorial status for volcanic areas could be formulated along similar lines to those of the 'Declaration of Principles Governing the Seabed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits of National Jurisdiction', agreed by the UN General Assembly in December 1970: “The exploration of the area and the exploitation of its resources shall be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States, whether land-locked or coastal, and taking into particular consideration the interests and needs of the developing countries”. Available at http://www.un-documents.net/a25r2749.htm, accessed on the 9th July 2013.