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The Volcanic Asymmetry, or the Question of Permanent Sovereignty over Natural Disasters*

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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, 3500 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 Argentinean government quickly announced a plan to supply 2.41 billion dollars to the 1400 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.¹ Paradoxically, Chile was the last to suffer the effects of the volcanic cloud, with only minor disruptions in its flight schedules.

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¹The Australian Tourism and Transport Forum claimed that there hadn't been such a large disruption in the aviation industry since a pilot's strike in 1989. See BBC 2011.

1 One year later, the most affected cities in Argentina were still recovering. After
2 months under the ashes, the inhabitants of Villa la Angostura had to clean up five
3 million cubic meters of volcanic debris. They estimated losses of 60 million
4 dollars as tourism, the main economic activity in the area, declined drastically.²
5 In Chile, meanwhile, agriculture, cattle raising, and the flourishing tourism
6 industry in the area around Puyehue-El Cautle quickly returned to normal.
7 National and foreign visitors (many from Argentina and Brazil) returned to enjoy
8 the famous hot springs in the nearby area, the source of which is the same
9 volcanic fissure that caused havoc. Moreover, as part of the strategic plan to
10 search for new sources of energy, Puyehue-Cordón Caulle remained one of the
11 major areas of geothermal exploration. Who knows whether in the future Chile
12 might even install a geothermal power plant there to supply the energy needs of
13 Chileans and maybe even Argentineans on the other side of the border.

14 As it is usually the case when confronted with the unbridled forces of nature,
15 the general public enjoyed the spectacular images and lamented the transnational
16 chaos, while those affected relied on the help of their respective governments and
17 insurance companies—or else had to clean up the mess all on their own. Although
18 the volcano that caused the trouble lay wholly in Chilean territory, the Chileans
19 neither thought of compensating those affected outside their boundaries nor did
20 the latter think of demanding anything of the sort. I call this the “Volcanic
21 Asymmetry,” and present it thus: Why do we take for granted that countries are
22 in no way responsible for the *harms* generated by the natural resources within
23 their jurisdictions, but grant them the right to control, use, and profit exclusively
24 from the *benefits* derived from them? In other words, why do we assign to
25 countries rights to the *positive* utilities from the natural resources under their
26 jurisdiction, but hold them under no duty to bear costs for the *negative* utilities
27 generated by those resources for those beyond their borders?

28 That countries may freely enjoy the benefits of the natural resources within
29 their jurisdictions is a standard assumption in international law. One key
30 document is the 1962 UN General Assembly Resolution 1803 (XVII), entitled
31 Permanent Sovereignty over Natural Resources. The Charter of Economic Rights
32 and Duties of States from 1974, meanwhile, establishes that “[e]very state has
33 and shall freely exercise full permanent sovereignty, including possession, use
34 and disposal, over all its wealth, natural resources and economic activities,” and
35 the International Covenant on Economic, Social and Cultural Rights from 1976
36 underlines that “[a]ll peoples may, for their own ends, freely dispose of their
37 natural wealth and resources.”³

38 At the same time, there are international documents that leave the door open for
39 a more demanding interpretation—one whereby states should not only take the
40 profits, but also the responsibility for the effects that these resources may bring

42 ²See BBC 2012.

43 ³See respectively: United Nations 1962, 1974, and 1976.

1 about. Thus, Principle 21 of the Declaration of the United Nations Conference
2 on the Human Environment (better known as the Stockholm Declaration) affirms
3 that “states have, in accordance with the Charter of the United Nations and the
4 principles of international law, the sovereign right to exploit their own resources
5 pursuant to their own environmental policies, and the responsibility to ensure
6 that activities within their jurisdiction or control do not cause damage to the
7 environment of other states or of areas beyond the limits of national jurisdiction.”⁴
8 To be sure, the spirit in which this passage was conceived presumably understood
9 the “*activities* within [the state’s] jurisdiction or control” to be human, and not
10 animal, vegetable, or geological. It is not implausible, however, to ask why these
11 other options should not also be incorporated within this framework, especially
12 given the damages and high costs that may be incurred due to those, by public and
13 private agents not only domestically but also across borders.

14 As for political philosophy, this implication has been largely overlooked both
15 by statist and cosmopolitan theorists. I understand *statists*, on the one hand, as
16 those who hold the nation-state as the relevant political (and sometimes also
17 moral) actor for the purposes of distributive justice, and advocate full or almost
18 full sovereignty over the natural resources in their territories in order to achieve
19 this aim and others—like securing the basic rights and the self-determination of
20 the people, promoting the social order, and so on. When it comes to accepting
21 responsibilities for the undesirable effects these same resources provoke beyond
22 their borders, however, their silence is telling. I understand *cosmopolitans*, on the
23 other hand, to claim that territorial borders ought to be morally (and maybe also
24 legally) irrelevant for the achievement of distributive justice at the global level,
25 and to propose different ways of sharing at least partially, if not wholly, the
26 profits derived from natural resources that countries happen to control.⁵
27 Curiously enough, however, they too have neglected the question of cost-sharing
28 when it comes to unfortunate events produced by natural resources within states’
29 jurisdictions.⁶ But if we are willing to share the benefits derived from a country’s
30 geothermal energy, for example, why not also be willing to share the costs when
31 the same volcano that heats the water has an eruption?

32
33 ⁴United Nations 1972. Twenty years later, the Rio Declaration on Environment and Development
34 makes an almost identical claim: “States have, in accordance with the Charter of the United Nations
35 and the principles of international law, the sovereign right to exploit their own resources pursuant to
36 their own environmental and developmental policies, and the responsibility to ensure that activities
37 within their jurisdiction or control do not cause damage to the environment of other States or of areas
38 beyond the limits of national jurisdiction.” United Nations 1992.

39 ⁵I thus understand both positions to share egalitarianism as the main moral principle, while
40 disagreeing on its scope: domestic in the first case and global in the second. Representatives of the first
41 group include—among others—Richard Miller (1998), John Rawls (1999), Michael Blake (2001),
42 David Miller (2005), and Thomas Nagel (2005). Well-known cosmopolitan positions are those of
43 Charles Beitz (1975), Thomas Pogge (2008), and Gillian Brock (2009).

44 ⁶This is leaving aside, of course, the natural effects brought about by human causes, most
45 prominently anthropogenic climate change. On this topic, cosmopolitans have indeed said a lot. See,
46 for example, Shue 1993 and Caney 2005.

1 In the first part of the article, I present four arguments that may be invoked to
2 justify the existence of the Volcanic Asymmetry and show why they fail. The first
3 is that, just like in private property regimes, natural *resources* ought to be
4 normatively distinguished from natural *disasters*; in other words, that *Facts of*
5 *God* should be distinguished from *Acts of God*. The second is that there is no
6 Asymmetry, but merely a misunderstanding: what matters in terms of state
7 responsibility is *where* the resources are or events happen, and not *whence* they
8 originate. A third argument is that, by improving them, countries come to deserve
9 control over their resources, while this is not the case with events like volcanic
10 eruptions, which happen independently of any human intervention. A fourth
11 argument appeals to efficiency: in order to fulfill some basic functions, states
12 require to reap the benefits of their natural resources, while sharing the burdens
13 produced by natural disasters among all those affected makes more sense for the
14 same purposes.⁷ In the second part, I present two ways of getting rid of the
15 Asymmetry, by fully internalizing or externalizing both the benefits and costs
16 associated with natural resources. I conclude that neither is satisfactory, and
17 briefly point to an intermediate path.

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

30 Regarding terminology, I understand *natural resources* hereinafter as external
31 “natural assets (raw materials) occurring in nature that can be used for economic
32 production or consumption.”⁸ In this I follow the convention in international law
33 and do not distinguish *natural resources* from *natural wealth* (the environment
34

35 ⁷There are two other arguments that may be invoked to defend the Asymmetry that I leave aside.
36 One is to say that, customarily, countries have managed their affairs in this way and the result has
37 been satisfactory. I do not think that much time needs to be spent rejecting custom as a normative
38 reason, though, especially if one bears in mind that the idea of Permanent National Sovereignty over
39 Natural Resources only crystallized as an internationally accepted doctrine after the Second World
40 War. The other is to ground the Asymmetry in some sort of special attachment between the people and
41 the natural resources within their jurisdictions. If attachment is invoked, however, it would have to
42 be acknowledged that people create special connections both with their “good” and “bad” resources:
43 suffice it to see the veneration for volcanoes in different cultures (see, for example, Plunket and
44 Uruñuela 2008). If invoked, then, this argument would challenge the Asymmetry rather than
45 justifying it.

46 ⁸OECD Glossary of Statistical Terms.



whence these resources are obtained).⁹ 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.¹⁰

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 they should be dismissed.

A. 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.¹¹ 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

⁹For more on the definition and usages of *natural resources* and *natural wealth* in international law, see Schrijver 1997, pp. 12–8.

¹⁰Jurisdictional 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 un-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. See Nine 2012, p. 120.

¹¹The 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 preaviso non potest resisti. Tales sunt aquarum inundationes, incurtus hostium, incendia*).

1 prevented by any amount of foresight, planning, or care.¹² So when a volcano
2 erupts, no one (except, of course, God) is held responsible for the eruption and
3 the costs are left to lie with each of those affected. Both in private property and
4 in national sovereignty regimes, then, the distinction between *Acts* and *Facts* of
5 God carries normative weight: the former are fleeting, unpredictable occurrences
6 over which human agents have no control and therefore cannot be accountable
7 for; the latter are permanent features that remain more or less constant
8 throughout time, the benefits of which may be reaped by their owners/controllers.
9 States may then be said to enjoy full sovereignty over their stable natural
10 *resources* (with the rights and duties that this implies), but not over their erratic
11 and sudden natural *events*, under which natural disasters are subsumed.

12 It could be further argued that this way of dividing Acts and Facts actually
13 gives the right incentives to property owners/controllers. Because under this
14 arrangement they will feel protected and secure, they will be more keen on
15 investing on this type of assets and on improving them, therefore contributing to
16 economic growth and to the general prosperity of society. On the contrary, if
17 they had to pay compensation for the damages produced by every natural event
18 that happened within their premises, this would compromise much of these good
19 effects. For, why buy land and take the effort to make it productive, when any
20 thunderstorm may turn it into a liability? And how to feel secure when one's
21 property may end up saddling one with onerous responsibilities that one may not
22 even be able to discharge?

23 To this I respond two things. First, there are two relevant differences between
24 private and public ownership/control of resources that may stand as good reasons
25 to accept the Asymmetry in the former, but not in the latter case. They concern
26 the form and the content of the rights involved.

27 Regarding the form, private ownership of natural resources is a first-order
28 right limited in several ways. Owners have to pay taxes and/or royalties for
29 administering certain resources and reaping their benefits (such as minerals),
30 and there are tight restrictions on what they may or may not do in terms of
31 managing their property—like the public regulation of private forest practices.
32 Furthermore, regulations on private land-use, like servitudes, can restrain owners
33 from using their property in a manner that would affect third parties, while
34 through the law of eminent domain private land may simply be taken away for
35 public use following compensation. In other words, there is no such thing as
36 “Full Permanent Private Property over Natural Resources.” By contrast, states
37 possess jurisdictional rights to create and modify property laws at their will.

38
39 ¹²In the U.S., the *force majeure* clause—which includes Acts of God as well as other uncontrollable
40 events—appears in the *Restatement (Second) of Contracts* (1981), §261, and establishes that, “where,
41 after a contract is made, a party's performance is made impracticable without his fault by the
42 occurrence of an event the non-occurrence of which was a basic assumption on which the contract
43 was made, his duty to render that performance is discharged, unless the language or circumstances
44 indicate the contrary.”

1 These second-order or meta-rights allow them to decide the contours and limits
2 of what they own and the conditions under which they own it—and everyone else
3 for that matter. Thus, when it comes to property over natural resources states are,
4 so to speak, judge and jury. This greater liberty, one may think, should correlate
5 with greater responsibility. And what may sound like too onerous a requirement
6 for private owners (who have no say over the form of their ownership) might not
7 be so when it comes to states.

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

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

37 All I have said so far recognizes that the difference between Acts and Facts of
38 God—or between resources and events—does carry some normative weight. But
39 what if it didn't? Natural resources, after all, can easily be re-described as Acts of
40 God. *Ceteris paribus*, if volcanic eruptions and other natural events are no special
41 responsibility of the country where they happen to happen because the latter has
42 no control over their happening, so too should oil reserves, for example, be no
43 special responsibility of the country where they happen to be found, given that

1 the latter had no control over their being there either. In other words, if ought
2 implies can, then cannot implies ought not to. Because countries can control
3 neither their natural resources nor their natural events, they ought not to
4 be considered *sovereign* over them—*sovereignty*, after all, means precisely
5 “supremacy in respect of power, domination or rank,” “supreme dominion,
6 authority or rule”; “freedom from external control,” or “controlling influence,”
7 attributes which are all clearly lacking in this case.¹³ (This is, unless one wants to
8 make a distinction between actual and metaphoric or symbolic sovereignty, and
9 say that states enjoy some sort of the latter rather than the former. I doubt,
10 however, that advocates of this argument would accept this idea.)¹⁴

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

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

25 26 B. WHERE, NOT WHENCE

27 Advocates of the current regime could agree with what I have said so far but
28 complain that there is no Asymmetry here, but merely a misunderstanding.
29 Countries are indeed obliged to behave symmetrically regarding the normative
30 treatment of natural benefits and costs, so long as these are or take place within
31

32 ¹³See, respectively, Oxford English Dictionary Online 2014 and Merriam-Webster Dictionary
33 Online 2014.

34 ¹⁴Some may object here that I am equivocating on the definition of “control.” What I want to
35 say—the objection would go—is not that countries do not *control* their natural resources: they
36 actually do, by managing, overseeing, and exploiting them. My point is rather that countries are not
37 *morally responsible* for their natural resources and thereby do not deserve them, insofar as they did
38 not control their creation. But sovereignty logically requires only the first, not the second kind of
39 control. This line of argument, however, is problematic for two reasons: first, if humankind were ever
40 able to control (in the sense of managing) natural occurrences like tornadoes or volcanic eruptions,
41 advocates of this view would have to accept that countries are sovereign over these events too.
42 Second, if sovereignty over natural resources depends on the countries’ ability to manage them, then
43 current claims would have to be revised and would probably lead to a quite dramatic redrawing of
44 borders—especially when countries delegate to others the exploitation of their natural resources. I
45 thank an anonymous referee for pressing me to clarify this point.

1 their borders. Just look at Japan's anti-seismic constructions, Hawaii's tsunami
2 warning system, and Mexico's evacuation plans for the thousands living in
3 the skirts of moody Popocatépetl! The morally required Symmetry is indeed
4 respected, then, but at the domestic level: whatever happens/is within their
5 borders is their problem or their blessing; but whatever happens/is outside those
6 borders is the neighbor's business. In other words, what matters normatively is
7 *where* the benefit or cost is felt; not *whence* it arose.

8 One could say that the reason for this is that, because states coerce their
9 subjects, it is to them only that they owe justification for the distribution of
10 benefits and costs derived from their natural resources. Michael Blake, for
11 example, has advanced the thesis that state coercion justifies the application
12 of relative principles of justice—mainly equality—among its citizens, leaving
13 absolute principles of justice (i.e., some sort of minimal economic sufficiency) for
14 the global arena.¹⁵ In other words, given that it has the potential to undermine the
15 individual autonomy of its subjects, the state owes them, in order to be legitimate,
16 a justification regarding the distribution of benefits and burdens within that
17 shared basic structure—a justification that it does not owe to foreigners who are
18 not under its coercion. Among these benefits and burdens, Blake could say, are
19 those derived from the natural resources under its control.

20 This argument, however, disregards the fact that, when countries enforce their
21 rights over their resources, they do so not only upon their citizens, but also upon
22 anyone who tries to infringe those rights. Moreover, it leaves unexplained why
23 states ought to aid their citizens more than anyone else affected by an event like
24 a volcanic eruption: after all, state coercion has no part to play here.¹⁶

25 To this it should be added that this line of argument begs the question. Once
26 borders, state coercion over people, and state control over resources have been
27 put in place, it might make a lot of sense to argue for equality for compatriots and
28 economic sufficiency for everyone. But why accept these structures in the first
29 place? Following Arash Abizadeh, one could point out that, by upholding an
30 interstate system of border coercion that is global in scope and that imposes an
31 economic regime, states owe much more than mere economic sufficiency to
32 everyone.¹⁷ By stipulating where the boundaries lie, and over whom and what
33 kinds of things states ought to exercise jurisdiction, this position appears to
34 get matters back to front, becoming “methodologically suspect”—as Simon
35 Caney has put it.¹⁸ Much more needs to be said, then, to successfully invoke this
36 argument as a justification for keeping the Asymmetry at the trans-national level.

37
38 ¹⁵Blake 2001.

39 ¹⁶What is more, if states did in fact owe duties of justice to their citizens in cases of natural
40 disasters, their language would have to be that of compensation instead of aid, and they would have
41 to make sure to give back to each of them exactly what they lost—but this is not something that
42 statisticians ever suggest.

43 ¹⁷See Abizadeh 2007.

44 ¹⁸Caney 2008, p. 507.

1 C. VALUE-ADDING LABOR

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

11 But three objections may be raised against the argument for added value.¹⁹
12 First, even if improvement is made to the resources in question, it is not clear
13 that this improvement is attributable to the national community as a whole:
14 presumably, not everyone directly or indirectly enjoying the profits will have
15 contributed equally, while some (maybe most of them) will not have contributed
16 at all. Second, the degree to which the resources are transformed will vary greatly,
17 with some of them undergoing very little or no transformation. Third, even if we
18 grant these claims based on some sort of improvement, it is not obvious that the
19 best way to respond to them is by allocating exclusive and full resource rights to
20 states.

21 Elaborating on the second point, one might add that, if we accept this
22 reasoning, the outcome would be a much more restricted sovereignty than what
23 the status quo presently allows. Many countries today do not add any relevant
24 value to a big part of the natural wealth within their boundaries, but still have
25 jurisdictional powers and ownership rights over it. This is especially clear in the
26 case of those whose national income depends on granting prospective licenses
27 and mining leases to private companies for the exploitation of raw materials
28 such as minerals, oil, and gas. Through what Thomas Pogge has called the
29 “International Resource Privilege,” any internationally recognized government
30 (democratic or not) has the power to effect legal transfers of ownership rights in
31 natural resources, which are then upheld and enforced by international law and
32 institutions.²⁰ In this way, without having invested any time or effort (i.e., having
33 done nothing to deserve them), states still hold full control over them.

34 To be consistent, then, endorsing the value-adding argument in defense of the
35 Volcanic Asymmetry would amount to admitting that states have no obligations
36 toward outsiders in cases such as volcanic eruptions, at the cost of drastically
37 redrawing the contours of current national sovereignty over natural resources,
38 turning it into something much more moderate than what it is today: given that
39 a considerable part of these resources has not been *transformed* in the relevant

41 ¹⁹I take these from Armstrong (forthcoming).

42 ²⁰Pogge 2008, p. 119.

1 sense, this would imply giving them a different jurisdictional and ownership
2 status. A further problem with this argument is that it may give countries a
3 perverse incentive to deplete some of their natural wealth in order to acquire a
4 claim over it, at a stage in human history where everything suggests that we
5 should be moving in the opposite direction.²¹

7 D. MORE EFFICIENT

8 A fourth defense of the Volcanic Asymmetry appeals to instrumental reasons, or
9 what in the literature on territorial rights are referred to as “functionalist”
10 arguments. Under this justification, states should enjoy full permanent sovereignty
11 over their natural resources in order to perform certain key functions—among
12 them, satisfying the basic needs of their members, guaranteeing their self-
13 determination, implanting justice, promoting the social order, and conserving
14 these natural assets in the long-term, for the enjoyment of future generations.²²
15 On the contrary, because natural disasters do not contribute in any way to achieve
16 these goals but detract states from reaching them, it makes sense to let the latter
17 share the costs associated with them with whomever they fall upon.

18 The problem is that none of these functionalist arguments justifies full
19 permanent sovereignty. To satisfy the basic needs of their members, many—if not
20 most—countries would do just as well by keeping a much more limited portion
21 of territory and control over resources.²³ Regarding self-determination, there is
22 no reason to think that thorough control over natural resources is a condition for
23 its achievement, and that anything less than that would undermine it. This would
24 be true, maybe, if different nations were under different jurisdictional regimes,
25 but this is not the case. Implanting justice in the territory and promoting the
26 social order, again, may be good reasons to assign to countries full permanent
27 sovereignty over certain geographical areas—but this argument would have to be
28 stretched unduly in order to justify current borders. Finally, the idea that states
29 are the best stewards of natural resources and that any alternative arrangement
30 would lead to worse outcomes (like deterioration and overuse) is an empirical
31 claim that has been repeatedly contested with actual evidence.²⁴

32
33 ²¹This may not seem problematic in the case of minerals, for example, where one could dig them
34 all up to then put them into a bank vault and let them rest there, not using them at all. In the case
35 of renewable resources such as fishing stocks, however, it is difficult to imagine what adding value
36 would amount to that did not involve irreversible transformation of some kind.

37 ²²This last “stewardship argument” is offered by Rawls for supporting state boundaries: “In this
38 case the asset is the people’s territory and its capacity to support them in perpetuity; and the agent is
39 the people themselves as politically organized.” Rawls 1999, p. 39.

40 ²³Moreover, this argument assumes that countries are dependent on their natural resources to
41 achieve this end, although many prosperous national economies situated in resource-poor areas prove
42 the contrary.

43 ²⁴See the boom of shark finning in Costa Rica, despite the country’s vows to conserve this
44 endangered species (Mosbergen 2013), and Saudi Arabia’s depletion of its fossil water aquifer to a
45 fifth of what it was in only 40 years (National Geographic 2013). That none of the functionalist

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

8 II. RETHINKING SOVEREIGNTY OVER NATURAL RESOURCES

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

14 A. FULL INTERNALIZATION OF COSTS AND BENEFITS: ABSURD, IMPRACTICABLE 15 AND UNFAIR

16 For those who accept the current full internalization of the benefits generated by
17 natural resources, eliminating the Asymmetry would amount to accepting also
18 full internalization of the costs generated by them; to wit, Permanent Sovereignty
19 over Natural Disasters. This means that countries would have to compensate
20 those outside their borders for damages caused by their natural resources and pay
21 back the benefits they received from those belonging to others. In the initial
22 example, Chile would acquire obligations toward Argentineans, South Africans,
23 Australians, New Zealanders, and everyone else affected by the havoc produced
24 by the Puyehue-Caulle Complex.²⁵ Beyond that, and assuming that there were a
25 global carbon emissions reduction scheme in place, Chileans would probably also
26 have to buy some extra credit to compensate for the large amounts of gas thrown
27 into the atmosphere during the eruption—unless they persuaded the world that
28 the ashes had actually helped to avert global warming in the year in question, by

29
30 arguments justifies the doctrine of full permanent sovereignty has been recently argued in a persuasive
31 manner not only by out-and-out cosmopolitans, but also by statist-leaning theorists. Along these
32 lines, Chris Armstrong has presented powerful arguments as to why this default position stands
33 without adequate justification; Lea Ypi has proposed that the territorial rights of states (and
34 within them, rights over natural resources) should only be granted provisionally and conditional
35 on the commitment to establish a political authority to realize just reciprocal relations globally;
36 Margaret Moore has advocated a much less robust control of natural resources by states and a duty
37 of rich countries to redistribute part of their proceedings to the poor; and Cara Nine has suggested
38 that only jurisdiction over resources, but not necessarily full ownership rights, is required by states for
39 the purposes of administering justice (See Armstrong forthcoming; Ypi 2012; Moore 2012; Nine
40 2012).

41 ²⁵Whether the responsible country should compensate the agents directly affected (for example,
42 through cash transfers to the stranded passengers and the farmers and companies that suffered losses),
43 or indirectly (through other arrangements with their respective governments) is an important practical
44 question, but I will not attempt to answer it in this article.

1 preventing sunlight from reaching the earth's surface.²⁶ Contrariwise, if the
2 Chilean ashes had acted as efficient soil fertilizers helping Argentinean farmers to
3 obtain an extra-luscious harvest, then the latter should compensate the former in
4 some way—for instance, by exporting their agricultural produce at a better price.

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

8 The charge that internalizing the full costs generated by the natural resources
9 under one's sovereignty leads to a reductio could be expressed in the following
10 way: by erasing the normative distinction between resources and disasters
11 (or, more generally, events), the question arises as to how to deal with other
12 geological occurrences, like earthquakes and tsunamis, and what to do about
13 related factors such as climate and geographical location. Regarding geological
14 events, and given that permanent national sovereignty is exercised over the
15 subsoil, should the country where the epicenter of an earthquake is located
16 compensate the neighbors affected by the tremor?²⁷ And if a tsunami is triggered
17 after the earthquake, should the country in question also compensate those
18 affected by the violent waves hitting their coasts? **Regarding climatic and**
19 **geographical conditions, should countries with benign climates compensate those**
20 **with harsher ones? Should landlocked countries be compensated by those with**
21 **coastal access, and those prone to malaria outbursts be compensated by those**
22 **free from tropical diseases?**²⁸ In the case of destructive weather events, and given
23 that countries are also sovereign over the airspace above them,²⁹ should those
24 above which hurricanes are formed compensate others affected by their trail of
25 destruction? "Answering these questions in the positive would surely lead to
26 preposterous scenarios!", the objection would go.

27 To this, let me say that I agree, but let me also add that the current state of
28 affairs, where countries are in full control of the natural wealth that is or happens
29 under their sovereignty, in many (if not most) cases due to sheer luck, is not
30 necessarily less preposterous. That this arrangement has solved a collective action
31 problem at the global level, and that it is recognized, endorsed, and respected by
32 the main actors in the international arena are, I concede, strong and tempting
33 reasons for wanting to keep it as it is. However, I have shown in the first part that
34

35 ²⁶I thank Bob Goodin for suggesting this last point. Either way, the amount of the compensation
36 would be nothing to worry about. Rough measurements indicate that the totality of volcanic
37 eruptions in the world in one year barely represent around 1/135 of the total emissions produced by
38 humans. See Marshall 2011.

39 ²⁷"Territorial sovereignty extends principally over land territory, the territorial sea appurtenant to
40 the land, and the seabed and subsoil of the territorial sea . . . In accordance with customary
41 international law and the dictates of convenience, the airspace above and subsoil beneath State
42 territory, are included in [this] category." Brownlie 2008, p. 105.

43 ²⁸The economist Paul Collier, for example, has claimed that landlocked countries surrounded by
44 poor neighbors have slim chances of getting out of poverty (Collier 2007, pp. 53–63). See also Sachs
45 and Malaney (2002), who correlate high incidence of malaria to persistent levels of poverty.

46 ²⁹Brownlie 2008, p. 105.



1 this arrangement may be at most partially, but not wholly justified. If accepting
2 full internalization leads to a reductio, then maybe the proper question to ask is
3 whether, in light of this, we ought not to revise the entrenched practice of making
4 states wholly responsible only for what is good, but not for what is bad, among
5 the natural resources over which they claim control.

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

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

26 Advocates of full internalization could point out here that, at least in the case
27 of seismic and volcanic areas, together with the costs come the benefits. Seismic
28 areas are normally packed with mineral reserves, among them gold, and volcanic
29 areas usually have rich agricultural soils, mineral reserves, and they are a massive
30 source of geothermal energy.³⁰ Therefore, it is not just losses that countries would
31 incur by taking full responsibility over these resources and one could even argue
32 that, in the long run, the permanent benefits of having them could outweigh the
33 sporadic costs. But there are at least two objections to this response. One is that,
34 due to what is known as the “resource curse,” the very possession of mineral
35 resources may be disadvantageous and prevent these countries from developing
36 stable democratic institutions and attaining economic prosperity.³¹ The other is
37 that, if it is fairness that one worries about, then surely a much more equitable

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39 ³⁰See, respectively, Weatherley and Henley 2013, and Shoji and Takahashi 2002.

40 ³¹See Sachs and Warner 2001, and Wenar 2008. It has to be born in mind that this argument
41 assumes a deterministic causality between being resource-rich and having a corrupt government and
42 a fragile and under-developed economy. Counter-examples such as Norway, Australia, and Chile,
43 however, suggest that these factors are not always causally connected, even though sometimes they
44 might be correlated. See Wright and Czelusta 2004.

1 solution would be to have resource-rich and resource-poor countries share both
2 the costs and benefits associated with their natural resources—i.e., to opt for full
3 externalization. I present this position next.

4 5 **B. FULL EXTERNALIZATION OF COSTS AND BENEFITS: A DAUNTING ENTERPRISE?**

6 If one takes a purist cosmopolitan line, eliminating the Volcanic Asymmetry
7 would amount to accepting that not only the benefits, but also the costs derived
8 from natural resources should be globally shared. So far, as was said at the outset,
9 cosmopolitan theorists have focused on the former but ignored the latter. That
10 the benefits from natural resources should be shared to some extent is the
11 rationale behind Thomas Pogge's proposal for a Global Resource Dividend
12 (GRD), whereby governments should be required to divert part of the profits
13 from the use and/or sale of some of them to fulfill the basic needs of the world's
14 poor.³² A more egalitarian proposal is Hillel Steiner's Unconditional Initial
15 Capital Grant (UICG). On Steiner's view, in a fully appropriated world like
16 ours, each person is entitled to an equal portion of the value of various natural
17 resources—ranging from rain to genes. This non-paternalistic unconditional
18 initial capital grant would originate in a fund where "all owners of natural
19 resources must pool the value of what they own . . . to an equal portion of which
20 everyone everywhere has a moral right."³³

21 As a necessary complement to their views, something like a Global Disasters
22 Fund (GDF) should then also be put in place to cover for the costs generated
23 by natural resources at the international level. This would be based on a
24 principle not of charity or humanity, but of distributive justice.³⁴ (Whether this
25 redistribution should be done while keeping nation-states in place, or whether a
26 better fit would be to replace the whole post-Westphalian framework and start
27 anew, is a point over which cosmopolitans are divided. This, however, does not
28 affect the fundamental tenet from which they start: that the present possession
29 of natural resources by states is at its root contingent and should not be an
30 impediment in the way to global justice.)

31 In fact, the bases for a GDF already exist. Set up in 2000, the UN Trust Fund
32 for Disaster Reduction finances the UN Office for Disaster Risk Reduction
33 (UNISDR), whose main goal is the prevention, preparedness, and mitigation of
34 natural, human, and technological hazards, and the coordination of strategies
35 directed toward this goal at the domestic, regional, and international level. Of
36 course, the GDF would not deal with human-caused disasters, and in that sense
37 it would constitute a subsection of the UNISDR. Another relevant difference

38
39 ³²Pogge 2008, p. 202.

40 ³³Steiner 2009, p. 6.

41 ³⁴A separate question is to decide what kinds of costs generated by natural resources would be
42 eligible for redistribution. Would defective genes count? And bad climate? I do not attempt to answer
43 this here.

1 between the existing system and the proposed one would be, as I already
2 mentioned, the main principle underlying its funding: while the current UN Trust
3 Fund is made up entirely by voluntary contributions based on humanitarian
4 grounds (with the European Commission, Sweden, and the World Bank as the
5 main donors at present),³⁵ the GDF would be based on principles of distributive
6 justice.³⁶

7 A first objection to this approach is that not everyone agrees that justice
8 requires goods that people enjoy through luck to be redistributed—think, for
9 example, of natural talents, and beauty. From the fact that natural resources are
10 “undeserved” in the same way, then, it does not necessarily follow that they
11 should be subject to global redistribution. But there are important differences
12 between individual ownership of natural endowments and collective ownership
13 of natural resources which suggest that, while one may be wary to demand
14 redistribution of the former, this is not necessarily the case when it comes to the
15 latter. Just to mention two: an individual talent is not worth much if it remains
16 undeveloped. Even the smartest people need to apply their intelligence in order to
17 profit from it; triathlon champions are not born as such, musical virtuosos only
18 become so through hard training, and the most beautiful natural beauty has to
19 invest a lot of time, effort, and money in order to become a supermodel (those
20 who believe that just a bit of lipstick will do are clearly out of touch with the
21 demands of the fashion industry). On the contrary, countries can profit from their
22 natural resources with no blood, toil, tears, or sweat on their part.³⁷ Second, as
23 Charles Beitz has remarked, natural endowments “come with us” (we have no
24 say over having them or not), while countries appropriate resources that are “out
25 there”—something that, in a world of scarcity, makes others worse-off.³⁸

26 A second objection against global redistribution of the “common perils of
27 mankind” is that establishing a fund like the GDF would be just as impracticable
28 as establishing a GRD, a UICG, or any other instrument for global redistribution
29 of the “common heritage of mankind.” Because there are no coercive
30 supra-national institutions of the kind needed to administer, maintain, and
31 enforce such instruments, these ideas ought to rest in peace. Moreover, because of
32 the formidable difficulties in assessing gains and losses, it would be a daunting
33

34 ³⁵See United Nations Office for Disaster Risk Reduction 2012.

35 ³⁶I say “not exclusively” because it would make sense to complement full externalization with
36 other principles, like remedial responsibility based on the capacity of the agents; that is, responsibility
37 to aid based on one’s means, regardless of one’s causal, moral, or emotional connection to the harm
38 being remedied (see Miller 2001).

39 ³⁷If not fully, countries can profit at least partially from resources that they have done nothing to
40 develop, by taxing and demanding royalties from those who do the hard work of training the
41 engineers and personnel, developing new extractive techniques, and building the infrastructure
42 required to exploit them, among other things.

43 ³⁸See Beitz 1975, pp. 368–9. When it is not due to sheer luck, then, countries normally have the
44 resources they have thanks to a history of conquest, colonization, forced displacement of native
45 populations, and unjust wars. None of these seems very appealing as an alternative foundation for a
46 legitimate claim over natural resources.

1 enterprise to attempt anything of the sort (just as daunting, indeed, as trying to
2 implant full internalization). However, discarding an idea because it seems
3 impracticable and difficult to implement here and now may be an acceptable
4 response from legal practitioners and policymakers but not from those theorizing
5 about the moral and legal grounds of those practices and policies. Many
6 ideas that at some point were thought impossible to carry out—like universal
7 suffrage—are now a reality. That new international institutional structures and a
8 novel understanding of sovereignty over natural resources would be necessary to
9 eliminate the Volcanic Asymmetry at the global level should not deter us from
10 thinking about the possibility and plausibility of this alternative, however
11 practically challenging it may appear at first sight,³⁹ and especially bearing in
12 mind the potential benefits it may bring about.

13 What I have said so far, however, is compatible with more, but not necessarily
14 with full externalization. One might agree, after all, that the benefits and costs
15 derived from the world's natural resources ought to be shared to a much
16 greater extent than what they are today, without having to relinquish all special
17 claims from individuals and/or collectives to particular geographical locations.
18 Especially those who think that there is something to be said on behalf of
19 attachment to a specific territory will probably agree that full externalization
20 would be as much of an overreaction as full internalization.⁴⁰ This points us in a
21 third direction.

22 23 C. SOMEWHERE IN BETWEEN

24 We live under a global system where the monopolistic sovereignty of states
25 over the world's natural resources is still very much taken for granted both in
26 international law and political philosophy. It may be sensible and convenient to
27 draw normative lines that run as close as possible to the actual state of affairs, for
28 certain purposes. But this is no excuse for failing to criticize and question what
29 there is, pitting it against what there could and should be.⁴¹ This, with all the
30 more reason in a world where the current regime of resource rights has become
31 increasingly contested by everyday actors such as indigenous communities, social
32 and environmental groups, and individual citizens.

33
34 ³⁹As Simon Caney has suggested, questioning the existing global statist framework is neither
35 irrelevant nor useless. First, it is mistaken to assume that the status quo cannot be modified. Second,
36 one of the functions of moral language is to candidly describe what there is, even if there is no chance
37 of reforming it. And third, signaling that the current system of states is unjust or—to put it in the
38 terms I have been using—asymmetrical does have practical relevance, insofar as it affects individual
39 attitudes to these entrenched institutions and puts in question the moral reasons to comply with what
40 these institutions require from us. See Caney 2008, p. 508.

41 ⁴⁰See, for example, Kolers (2012) who criticizes full-blown cosmopolitan positions for turning
42 land and natural resources into merely exchangeable goods, failing to acknowledge that our
43 relationship with territory is bidirectional.

44 ⁴¹Elsewhere (Mancilla 2014), I have referred to this tendency as the “status quo fallacy.”

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

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

29 A good testing ground may be to begin by subjecting volcanic areas to a special
30 international regime. Just as the High Seas and the ocean floor beneath them are
31 currently part of the Global Commons, so could volcanoes join the list: owned
32 by none, owned by all. And just as a supra-national body like the International
33 Seabed Authority overviews all mineral-related activities in the international
34 seabed area beyond the Exclusive Economic Zones of states, an International
35 Volcanic Authority (maybe under the tutelage of the existing UNISDR) could
36 organize and control the profits arising from economic exploitation in these
37 areas, while at the same time building a fund to cover for contingencies when they
38 arise.⁴² This would represent one step forward in the way toward a different
39

40 ⁴²This new supra-national authority could be the spearhead of a future GDF. Meanwhile, the new
41 territorial status for volcanic areas could be formulated along similar lines to those of the Declaration
42 of Principles Governing the Seabed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits
43 of National Jurisdiction, agreed by the UN General Assembly in December 1970: “The exploration

1 global territorial ordering, where natural resources are increasingly seen as part
2 of the common patrimony of humanity, and where the benefits and costs they
3 generate are shared accordingly. More importantly, it would help to show how
4 plausible or implausible global distributive justice turns out to be in practice.

5 Last but not least, given the global environmental challenges lying ahead of us
6 in terms of climate change, decreasing biodiversity, air and water pollution,
7 desertification, and depletion of marine resources due to contamination and
8 overfishing (among others), the question whether the current regime really helps
9 to halt or slow down these threats is as timely as ever. If it turns out that it is not
10 (as the actual scientific evidence increasingly suggests), this would be an
11 additional reason to limit full state sovereignty over natural resources and to seek
12 to diffuse it among different agents, both in the domestic and supra-national
13 arena. Some incipient arrangements along these lines are already in place. At
14 the domestic level, for example, the International Labour Organization
15 Convention No.169 gives indigenous communities a right to participate in the
16 use, management, and conservation of the resources pertaining to their lands, and
17 requires nation-states to consult them before undertaking exploration or
18 exploitation projects that could affect them.⁴³ At the international level,
19 meanwhile, agreements like the International Convention for the Regulation of
20 Whaling, the Convention Concerning the Protection of the World Cultural and
21 Natural Heritage, and the Kyoto Protocol require signatory states to commit
22 themselves to the fulfillment of certain minimal standards regarding natural
23 resources. Rather than starting anew, then, opting for partial state sovereignty
24 would consist in deepening and perfecting existing structures such as these, and
25 in gradually implementing others maybe taking the latter as a model. A more
26 dispersed, democratic, and multi-level regime seems to be the way forward not
27 only for the sake of logical consistency but, more importantly, for the sake of a
28 fairer system of global governance of natural resources.

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