Space, nature and hierarchy: the ecosystemic politics of the Caspian Sea

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Abstract
The Anthropocene has given rise to growing efforts to govern the world's ecosystems. There is a hitch, however, ecosystems do not respect sovereign borders; hundreds traverse more three states and thus require complex international cooperation. This article critically examines the political and social consequences of the growing but understudied trend towards transboundary ecosystem cooperation. Matchmaking the new hierarchy scholarship in International Relations (IR) and political geography, the article theorises how ecosystem discourse embodies a latent spatially exclusive logic that can bind together and bound from outside unusual bedfellows in otherwise politically awkward spaces. We contend that such 'ecosystemic politics' can generate spatialised 'broad hierarchies' that cut across both Westphalian renderings of space and the latent post-colonial and/or material inequalities that have hitherto been the focus of most of the new hierarchies scholarship. We illustrate our argument by conducting a multilevel longitudinal analysis of how Caspian Sea environmental cooperation has produced a broad hierarchy demarking and sharpening the boundaries of the region, become symbolic of Caspian in-group competence and neighbourliness, and used as a rationale for future Caspian-shaped cooperation. We reason that if ecosystemic politics can generate new renderings of space amid an otherwise heavily contested space as the Caspian, further research is warranted to explore systemic hierarchical consequences elsewhere.

Keywords
Global environmental politics, hierarchy, International Relations theory, ecosystems, Caspian Sea, global governance

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After the collapse of former Soviet Union, cooperation between the Caspian Sea littoral states started through the signing of 'Tehran Environment Convention' . . . the first political document signed between the five countries. In today's historical meeting, we will witness the signing of Caspian Sea Legal Regime Convention that will put emphasis on sovereignty, sovereign rights, eligibility and monopoly of the right to decide on the sea.

The President of Iran, Aktau Summit (Rouhani, 2018a)

This article argues and illustrates that environmental cooperation and transboundary eco-systems are a resource for producing hierarchies in world politics. Such ecosystem-based hierarchies can structure regional order in significant ways and are likely to increase in prevalence as the full import of systemic global environmental change figures into states' foreign policy repertoires. By making this argument, we aim to advance the burgeoning body of work in International Relations (IRs) that has sought to account for how hierar-chies that structure world politics emerge, intersect and reproduce, and the consequences of these processes (Zarakol, 2017; Mattern and Zarakol, 2016). This scholarship has illuminated how broad hierarchies of race, gender (Sjoberg, 2017), science (Yao, 2021) and civilisation (Towns, 2010; Yao, 2019) structure world politics. However, the ways in which ostensibly 'natural' geography can be productive of hierarchies – 'intersubjec-tively constituted (or maintained) structure[s] of inequality' (Mattern and Zarakol, 2016: 730) – have thus far been overlooked.[1] This 'green blind spot' reflects a broader pattern in the discipline of IR whereby environmental issues still receive less attention than IR scholars themselves suggest they warrant (Green and Hale, 2017).[2] It also reflects how the 'pretence of technocratic neutrality' of global environmental governance success-fully obscures power relations (Accetti, 2021).

   To begin to remedy the IR hierarchy studies' green shortcomings, we extend a nascent research agenda pioneered in political geography that explores the political and social consequences of regional cooperation anchored in transboundary ecosystems. We con-tend that 'ecosystemic politics' (Wilson Rowe, 2021) – states clubbing together around adjacent ecosystems partly through establishing new regional geopolitical imaginaries – generates broad hierarchies that can transform relations of privilege and subordination due to the seeming objectivity and 'naturalness' of geographic knowledge. These ecosys-temically anchored hierarchies can cut across both Westphalian renderings of space *and* the latent postcolonial and/or material inequalities that have hitherto been the focus of most recent hierarchies scholarship (e.g. Barnett, 2017; Yao, 2019, 2021; Zarakol, 2017) but sit in tension with both the cosmopolitanism of conventional environmentalism and the plurality of state interests that frequently hinder such environmental efforts (Falkner and Buzan, 2019). Taking inspiration from the field of critical geopolitics, we illustrate that apprehending the production of hierarchies around ostensibly objective geographic features requires attention to the emergence and scaling of the policy object itself (see Allan, 2018). While cooperation around ecosystems takes legitimacy from the universal-ism of science and environmentalism, we show how political engagement around eco-systems can activate a latent spatially exclusive logic that privileges adjacent participants while creating boundaries for others on the 'outside' (see Paes, 2022a on the Amazon, or Depledge, 2018 and Wilson Rowe, 2018 on the Arctic).

Through a case study of the emergence and development of governance of the Caspian Sea, we explore how ecosystems can serve as political and social capital for buttressing states' claims to privileged positioning within a region vis-à-vis outsiders. The Caspian Sea presents an intriguing case for exploring the spatialising potential of ecosystems because adjacent countries – Azerbaijan, Iran, Kazakhstan, Turkmenistan and Russia – have long struggled to agree upon the very *nature* of the space that connects them, most prominently whether the Caspian is a sea or a lake (Bayramov, 2020). Indeed, most IR research dealing with the region treats the Caspian states as embroiled in a tense 'Great Game' for control of the natural resources on the seabed, whereby a two-decade long quarrel prevented legal partition and has been frequently punctuated with hostilities that bordered upon war (see Bayramov, 2021). Perhaps, we might expect the post-Soviet states to club up as they have done elsewhere (Allison, 2008), but Iran remains the odd-one out and a far from obvious in-group member. Finally, with non-democratic states on all sides, the Caspian Sea would not appear to be a promising case for cooperation according to functionalist-inflected theories of integration and cooperation, let alone would these approaches expect it to produce broader effects.[3]

Yet, at the Aktau summit in 2018, the leaders of the five Caspian states released baby sturgeon into the sea – a symbol of ecological renewal and the environmental cooperation that had been their initial focus – and signed an agreement that went a long way to resolving long-standing legal disputes on the status and division of authority in the Caspian Sea. Importantly, these agreements were accompanied by declarations like that of the Iranian president at the beginning of this article, drawing a narrative arc between the earliest days of Caspian environmental cooperation and a growing consolidation of the Caspian states as a political grouping, anchored in the sea itself yet ordering relations in a variety of fields and vis-à-vis non-adjacent states and international actors.

After considering how critical geopolitics' insights into the politics of representing natural spaces could dialogue with the recent wave of hierarchy-centred scholarship in IR, we utilise this approach to analyse 25 years of Caspian cooperation. Building upon Bayramov (2020), we show how the frequency and timing of environmental cooperation offered a platform for ongoing engagement that facilitated cooperation on broader hitherto contentious regional issues, such as security and the legal status of the sea. Then, going beyond Bayramov's neofunctionalism, we illustrate how politics around the Caspian ecosystem played out in several ways here that are well illuminated by a broad hierarchy lens. First, the scaling of the cooperation to the littoral states was politically rather than functionally legitimated: cutting against technical experts' recommendations during its genesis. Hence, the boundaries of the cooperation that would become reproduced and reified through ecosystem management practices could have been rather different. Second, we show that the ecosystem cooperation served as a useful and viable discursive resource for a collective identity project that enabled a positive reframing of a region that had been long stigmatised by those outside the region as contentious, competitive and uncooperative (see Bayramov, 2021; Heathershaw and Megoran, 2011). Third, we show how adjacent states' narrative around Caspian Sea cooperation marginalised international organisations that had been essential to the genesis of Caspian Sea cooperation. This narrative served to buttress the Caspian states' authority and helped rebut third-party attempts to intervene in Caspian conservation. We conclude that finding

evidence of ecosystemic hierarchies informing broader political and social relations between actors – beyond the confines of the environmental field and among states that otherwise do not tend to understand themselves as a collective – provides a strong warrant to explore the hierarchy-generating potential of the growing number of ecosystem-anchored governance initiatives worldwide.

Regional ecosystem cooperation and the production of hierarchy

IR is increasing attention on the potential of ecosystem cooperation to recentre governance and equity in a world impacted by global environmental change (Burch et al., 2019; Dalby, 2020; McDonald, 2021). This is not a straightforward endeavour – key accounts have rightly pointed to IR's sluggishness in grasping the magnitude of change and transforming its theoretical apparatus accordingly (e.g. Green and Hale, 2017; Simangan, 2020) However, we suggest that an important step towards addressing this lacuna can be taken by extending the reach (and exploring potential limits) of existing strands of IR theorising. Indeed, while traditional or 'mainstream' IR may well suffer from a commitment to first-order scientific ontologies that are inadequate for grappling with the Anthropocene's implications,[4] this is not necessarily the case for critical research agendas that are not yet in IR textbooks but nonetheless constitute the cutting edge of contemporary IR. In particular, we think the new hierarchies agenda in IR has untapped potential for shining a critical light on the transformations of the Anthropocene and political agents' growing awareness of it.

This involves going beyond the neofunctionalist logic that has usefully identified and analysed many of the dynamics of both regional integration and regional environmental governance. Environmental politics – and specifically the ecosystem management discourse that has emerged in the last 30 years – embodies an explicit neofunctionalist 'spillover' logic (Haas, 1958) whereby an economic interest in protecting one species begets a demand to monitor and manage the ecosystem writ large (see below). Meanwhile, although not strictly functionally linked, research in this tradition has shown how successful cooperation in low environmental politics can end up fostering high(er) political cooperation, including regional integration (see, e.g. Byers, 2017 on the Arctic Balsiger and VanDeveer, 2010 for a broader review). Indeed, recently and pertinently, Bayramov (2021) documented how environmental cooperation around the Caspian Sea fostered trust and habits that facilitated the littoral states reaching security and economic agreements. Neofunctionalism is a useful first cut for making sense of efforts to coordinate around ecosystems, and is well equipped to explain regional integration or lack thereof (see Rosamond, 2005, on neofunctionalism's continued relevance). However, going beyond the ambitions of neofunctionalism, we make the case for foregrounding the broader and perhaps unintended political and social effects of cooperation around ecosystems (broadly construed), that need not include effective integration but prove consequential nonetheless.

In what follows, we tie together research from environmental politics and political geography to establish the added value of studying cooperation around ecosystems through a hierarchy lens. Second, we turn to the literature on hierarchy in IRs and discuss

how ecosystems and geographical positions can be usefully conceived of a latent resource for new political and social hierarchies, which in turn can enable hierarchy scholarship to provide critical insights into the transformations in global politics being instantiated in the Anthropocene.

Ecosystemic politics

We now turn to the question of why the emergence, reproduction and effects of regional hierarchies around transboundary ecosystems merit attention. This analytical direction takes inspiration from the thriving scholarship on environmental politics, and picks up on its observation about the need to address how environmental politics contributes in systematic ways to structuring global politics more generally (see Biermann and Kim, 2020 for a synoptic account and key cases in Gruby, 2017 on Micronesia and Dodds and Nuttall, 2016 on the Arctic). In other words, while environmental politics and governance scholarship considers power and existing political orders to be an important input or contextual element (Young, 2017: 59), this research has yet to fully develop a conceptual lens for systematically considering the broader consequences for power and authority *due* to environmental cooperation. This concern for broader political consequences tallies with the broader hypothesis from earth system governance scholars that relations of power and authority are likely to be reconfigured by national, subnational and non-state actors seeking to govern the scale and rate of human and natural systems change (Burch et al., 2019: 2). With transboundary ecosystem cooperation emerging as an increasingly popular and ambitious form of regional environmental governance, it seems plausible that it may produce significant and potentially systematic broader effects within and around the region where it is undertaken.

Indeed, while we focus on Caspian ecosystem cooperation, the population of cases our analysis speaks to is already large and only likely to grow in significance with time. A recently developed database mapping the governance structures developing around transboundary ecosystems found that most but not all of them are managed via some form of supranational cooperation. Many ecosystems are managed via general environmental treaties, which are well-studied in the literature on environmental politics, some ecosystem issues are addressed in general multilateral settings (e.g. the EU), while a small number of ecosystems remains entirely ungoverned. However, a significant subset (62 cross-border ecosystems with four or more adjacent states) is governed by initiatives anchored in the ecosystem itself. These initiatives are often based on environmental issues but frequently include or expand to include a broader suite of problems (see Maglia and Wilson Rowe, n.d. for an overview and database and Church, 2020 for a comparative study of environmentally specific ecoregional institutions).

These cases of ecosystem-anchored cooperation are particularly important to account for as a specific phenomenon in global ordering because they are rooted in a selective marshalling of the material world and a simultaneous naturalisation of subsequent political effects, thus constituting relations of power that can prove particularly challenging to contest. Indeed, in calling for a programme exploring the broader and enduring political consequences of cooperation around ecosystems – the so-called 'ecosystemic politics' – Wilson Rowe (2021) illustrates the importance of this research agenda by mapping the

participation dynamics within the Arctic Council, identifying who gets to 'speak for the ecosystem' within this policy field, and empirically documenting the exclusion of non-adjacent states over time. In other words, the Arctic case shows provisional evidence for specific spatialising logic that allocates authority relations among actors based on prox-imity/adjacency to what has become intersubjectively acknowledged as a circumpolar meta-ecosystem. Taking a similar analytical starting point, Paes (2022a, 2022b) notes that the Amazon Cooperation Treaty Organization – often regarded as a 'zombie' organi-sation in light of its failure to reach stated institutional aims – has been a catalyst for structuring the participation of non-regional actors in the Amazon ecosystem and in cre-ating an Amazon 'club' in global environmental negotiations.

This line of inquiry ties in with key findings from scholars working in the tradition of critical geopolitics, which has long noted how geographical knowledge and its naturali-sation in certain practices of governance is closely tied with the exercise of power (Dalby, 2020; Lövbrand et al., 2020). As Agnew (2003: 3) noted so aptly over two decades ago:

> The world is actively 'spatialized', divided up, labelled, sorted out into a hierarchy of places of greater or lesser 'importance' by political geographers, other academics and political leaders. This process provides the geographical framing within which political elites and mass publics act in the world in pursuit of their own identities and interests.

These spatialisations of politics of particular geographical contexts can quickly be taken for granted and thereby become difficult to contest. Hence, writing about the polar regions, Powell and Dodds (2014: 9) call for both greater attention to 'the practices by which political actors spatialize international politics and represent it as a "world" char-acterized by particular types of places', and scholarship that does not merely 'describe the geography of politics within pre-given categories' but 'examine[s] the geographical specification of politics and places'. Notably, geopolitical imaginaries tied to natural features are often rendered even more incontrovertible due to their close association with natural science disciplines and ways of knowing (see, e.g. on the planetary scale, Lehman, 2020). Such geographical representations are particularly influential as 'they frequently pass without critical interrogation precisely because they are apparently obvious and appear to be permanent' (Dalby, 2020: 5).

In other words, critical geopolitics provides a compelling account of why states opt to strengthen their claims about and practices of political ordering by anchoring them in some spatial conceptualisation of the natural world. For example, Arctic cooperation could have been developed in relevant international organisations – like the United Nations or the World Meteorological Organisation – but was eventually scaled to cir-cumpolar settings in a specific way that fostered distinct political identities assigned to Arctic and non-Arctic states (Depledge, 2018; Dodds and Nuttall, 2016; Wilson Rowe, 2018). To help make sense of these types of processes – and decode the 'pretence of technocratic neutrality' of global environmental governance (Antonello and Howkins, 2020: 57) – the next section cross-fertilises hierarchy scholarship with insights from critical geopolitics by discussing how enduring relations of privilege and subordination are generated through and lent ballast with representations of the natural world.

Space, nature and politics: ecosystems and IR's new hierarchies' scholarship

We contend that combining these insights from critical geopolitics with the concept of *broad hierarchies* of world politics can illuminate how regional cooperation around ecosystems can produce stratified relations at the level of identity and political imaginary, thus adding to an ongoing project of accounting for the different forms of hierarchy that structure global politics. The recent wave of hierarchy-centred scholarship identifies important patterns of stratification and inequality that are produced by and structure world politics (see Mattern and Zarakol, 2016; Zarakol, 2017). It proposes a spectrum that moves from 'narrower hierarchies' that involve legal subordination towards 'broader hierarchies' composed of symbolic and material inequality that structure and shape IRs (Zarakol, 2017: 12). Scholars working with a narrower conception treat hierarchical relations as akin to a functional bargain, whereby actors consent to subordinate themselves to a higher authority in lieu of expected gains. In global governance, a typical example would be ratifying a treaty that limits sovereignty in a particular domain but promises to solve a collective action problem. For instance, the Tehran Convention, which brought the Caspian states into a cooperative framework and is explored in the case study below, commits its signatories to 'take all appropriate measures to prevent, reduce and control pollution of the Caspian Sea' (article 2) among a host of other specific obligations. While individual states' freedom to pollute is curtailed, the agreement is intended to reap collective benefits for all by avoiding the tragedy of the commons. These narrow hierarchies are theorised as purposive decisions that are subsequently open to renegotiation should expectations of gains go unmet (Zarakol, 2017: 7).

However, the main value of the new hierarchy agenda is that it helps us conceptualise and thus investigate how these narrower forms of hierarchy intersect and interact with broader sorts of hierarchies (Yao, 2021; Zarakol, 2017). Broad hierarchies – of symbolic or material *stratification* – may engender social pressures as well as pleasures, constrain action and even thought, quite beyond the control or perhaps even consciousness of those actors involved. Examples of hierarchy-centred scholarship span from studying the effects of military and economic stratification captured by neorealism and world systems theory, respectively, to deep discursive structures (e.g. orientalist or gendered hierarchies of self and other) that operate beyond, below and across the international state system.[5] Crucially, as Zarakol (2017: 7) notes, broad hierarchies also demark those 'that belong, or do not, in some space of world politics'. Thus, this optic can highlight how regional environmental institutions at once enact a contractual and functional bargain among signatories (narrow hierarchy), but simultaneously and perhaps less consciously demark a boundary defining insiders and outsiders, imply stratification constituting social position and inform who can speak for the issue or problem in question.

Indeed, this is why we suggest conceptualising ecosystems in terms of *hierarchies* rather than just a new (and interesting) form of *differentiation* delimiting spatially bounded, functionally similar 'segments' of global governance (see Albert et al., 2013). To be sure, ecosystemic politics, including as realised in the Caspian, is also a new mode of segmentation and could be usefully studied via the lens of global governance fragmentation and its consequences for effectiveness. Yet, in line with Viola's (2013) argument

that understanding the segmented state system requires attention to patterns of stratification constituting that system, it is quite possible for both principles of segmentation and stratification to be at play simultaneously in the emergence and consolidation of transboundary cooperation around ecosystems. Indeed, the advantage of a discursive hierarchy lens is that it enables us to situate and identify how technocratic, ostensibly functionalist ecosystem practices are imbued with social meaning, co-constitutive with their perceived utility but not reducible to it, and can thereby structure power relations both within and beyond the cooperation. For instance, English school works (e.g. Falkner and Buzan, 2019) have argued that 'Environmental Stewardship' norms have become a 'primary institution' defining legitimate behaviours for international society, whose associated norms constitute one of the multitude of ways in which international society is stratified despite the formal equality of its members (Naylor, 2018; see also Viola, 2020).

This article takes the study of international hierarchy in a new direction: analysing how the identification of border-crossing ecosystems and subsequent cooperation over these newly 'naturalised' policy objects are a resource in the production and maintenance of hierarchical relations. While Zarakol laid the conceptual groundwork for this agenda, our nearest theoretical antecedent and inspiration is Yao (2019, 2021) whose recent scholarship skilfully illuminates the role that civilisational and scientific hierarchies played in legitimating the exclusion of outsiders in the Antarctic and the Danube, respectively. We build upon these studies to the extent that we share an interest in the production and use of broad hierarchies demarking insider–outsider relations and ultimately authority.

However, whereas these works illuminate how long-standing broad hierarchies have been mobilised to legitimate governance over particular geopolitical spaces, the units to be governed tend to be treated as a pre-discursive given. Yet, as the scholarship in political geography discussed above makes clear, political spaces do not come already scaled. Thus, we explore how the processes involved in demarking a political space in *the first place* can generate and reproduce new insider and outsider dynamics. Specifically, we argue with our case that broad hierarchies can be activated on the basis of geographical position articulated through easily naturalised, intersubjective conceptions of the physical environment: ecosystems. Furthermore, the broad hierarchies identified in the literature tend to operate in the service of Western great power interests (Barnett, 2017; Yao, 2019, 2021; Zarakol, 2010). Yet, as we explore in the case that follows, existing scholarship suggests that there is value in examining the other side of this coin: whether 'locally' produced broad hierarchies – anchored in ecosystems or something else – can serve as political resources that cut against or are at least orthogonal to pre-existing modern or postcolonial hierarchies. Ultimately, what follows aims to showcase a new lens for making sense of the consequences of cooperation around ecosystems, while also developing hierarchy studies' theoretical scope, such that, it can grapple with the international politics of the Anthropocene.

Ordering the Caspian Sea

In our analysis, we examine the emergence of post-Cold War cooperation around the Caspian Sea to show how the boundaries (re)produced by environmental cooperation

anchored in cross-border ecosystems can bring together 'unusual bedfellows' whose concatenation is difficult to account for otherwise and has concrete consequences of exclusion of potentially or previously relevant actors. We use a longitudinal study of the emergence and solidification of Caspian environmental cooperation to illustrate how the Caspian Sea ecosystem was gradually imbued with symbolism of the region's together-ness. This cooperation provided a rationale for long-term in-group collaboration, and also facilitated an increasingly robust regional framing of the Caspian Sea while concur-rently sharpening boundaries demarking participation and leadership around the region. Ultimately, by unpacking these processes we aim to illuminate the *genesis* of a 'broad hierarchy': how representations of the 'natural' world – ecosystems in this case – can serve as potent resources for reordering social and political relations among peoples and states.

To explore the production of hierarchy around the Caspian Sea, we analyse three sources of longitudinal data. Tracing the international politics and the development of international institutions governing the region, step 1 highlights why the conflict and contention animating the oil and security politics in the post-Soviet period make these states unusual bedfellows and thus an illustrative case for our argument that cooperation around ecosystems can result in novel hierarchical relationships. Second, to identify *how* ecosystem cooperation generates and reproduces broad hierarchical renderings of space and their role in legitimating formal hierarchies, we then zoom in upon the project docu-ments that led to and underpin the environmental cooperation manifested in the Tehran Convention and its protocols. This involved a close reading of 43 substantial Tehran Convention-related project documents (1997–2015) and 59 news items (2014–2020) pertaining to the Caspian Sea.[6] Here, we show how implementing ecosystem-based man-agement provided a key logic and set of practices that scaled the political boundaries of cooperation, granting a privileged position to the immediately adjacent states within the policy field, while also serving to bind them together with denser cooperation than issue-specific environmental conservation or legal clarification would have allowed. Finally, to explore whether and how ecosystem logic has indeed informed the politics of the region beyond the environmental field, we analysed the elite national discourses of the Caspian states: how ecosystem cooperation has served to facilitate and legitimate the social and political grouping of the so-called 'Caspian Five'.[7]

Unusual bedfellows: ecosystem cooperation amid regional contention

In the 30 years of cohabiting the Caspian Sea, the littoral states have not always gotten along. The contemporary geopolitical boundaries of the Caspian Sea came into being with the dissolution of the Soviet Union, when Azerbaijan, Kazakhstan, Turkmenistan and Russia emerged as independent states. Prior to 1991, the Caspian was governed by bilateral treaties between Iran and the Soviet Union that organised patterns of interaction and specified privileges and responsibilities. The last of these was the 1940 Treaty of Commerce and Navigation that granted both parties the freedom to fish in the entire Caspian, except for a 10-mile zone around their respective coasts (Janusz-Pawletta, 2016: 16). The treaty also excluded all other countries from commercial or military navi-gation. However, the issue of rights to undersea resources was left unresolved

(Janusz-Pawletta, 2016). Upon the collapse of the Soviet Union, the subsequent lapsing of the Soviet–Iran treaties left open the question of access of third parties to the sea. This increasingly alarmed Iran and Russia during the 2000s, as the United States and the North Atlantic Treaty Organisation (NATO) established naval cooperation with Turkmenistan, Azerbaijan and Kazakhstan during the Afghanistan War (Coffey, 2019: 8–10). Most contentiously, the new legal vacuum also led to the five littoral states wielding rival interpretations of international law in order to maximise their respective claims to the Caspian's undersea resources (Sheikhmohammady and Madani, 2008).

Thus began a long, arduous quarrel over the legal status of the Caspian. In particular, the littoral states disagreed over whether it should be defined as a lake or a sea and thus who should have rights to the resources underneath (Janusz-Pawletta, 2016; Sheikhmohammady and Madani, 2008). While initially the fault lines of the negotiations pitted Russia and Iran against the others, Russia reached a bilateral compromise with Kazakhstan in 1998 and shifted towards a zone-based approach (Sheikhmohammady and Madani, 2008: 2–4). This left the southern Caspian states – Iran, Turkmenistan and Azerbaijan – contesting the principle by which their national economic zones should be divided (Lee, 2005). The southern states' disagreement over the status of the Caspian has sometimes flared into crisis. For instance, when Azerbaijan began exploring the seabed in the disputed coastal area, Iran deployed naval vessels to force them to desist (Lee, 2005: 37), while relations between Azerbaijan and Turkmenistan have often been contentious (Lee, 2005). It is perhaps not surprising that the Caspian states are usually portrayed in IRs scholarship as regime-enriching, sovereignty-guarding instrumental actors embroiled in a tense competition for oil and gas (see Bayramov, 2020 for critical analysis of this academic and policy discourse).

Yet, despite their dispute over the legal definition of the Caspian and the historical tradition of seeking to exclude third-party interventions, over the course of a quarter of a century the five littoral states have been undertaking steadily deepening environmental cooperation with the support of multilateral, non-regional institutions (Bayramov, 2020). In the immediate aftermath of the breakup of the Soviet Union, the Caspian states expressed an interest in cooperating on common environmental issues. With the four post-Soviet states undergoing political and economic upheaval, they turned to international organisations (IOs) for financial and technical assistance. In 1998, the Caspian Sea Environmental Program (CEP) was established to lay the groundwork for regional environmental treaties and comprehensive environmental management in the Caspian. With the support of the United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), the European Union (EU) and in particular the Global Environment Facility (GEF), CEP oversaw the development and signing of the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (the Tehran Convention).[8] Having been ratified by all the Caspian states, it entered into force in August 2006, becoming the first legally binding environmental treaty governing the Caspian Sea. Over the course of the next decade, the treaty was steadily supplemented with four further additional protocols. As Bayramov (2020) shows, IOs played a crucial role in catalysing Caspian cooperation. The Tehran Convention and its protocols were ultimately incorporated into a new comprehensive
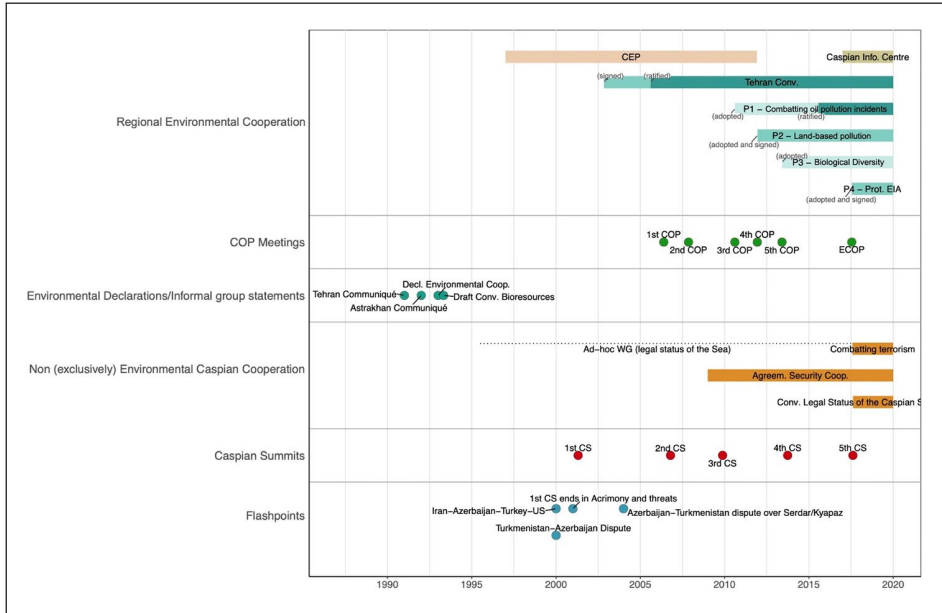
Figure 1. A timeline of Caspian cooperative activities and events between 1990 and 2020.
Source: Bayramov (2020); Lee (2005); Tehranconvention.org (n.d.); UNEP (2015); SOE (2019).

legal agreement – signed 12 August 2018 – covering security, economic and environmental issues: the Convention on the Legal Status of the Caspian Sea.

Mapping the timeline of Caspian cooperative activities (Figure 1) highlights how the *first* sustained and successful cooperation emerged around environmental issues. While the ad hoc working group on the legal status of the sea was established in 1995 and met 52 times during the period, due to deadlock and disagreement it only produced tangible results in the late 2010s. In contrast, from 1998 the CEP orchestrated three consecutive successful IO-sponsored projects – Transboundary Diagnostic Analyses (TDAs) of the Caspian Sea, CEPSAP[9] and CaspEco – which facilitated the development and signing of the Tehran Convention within 5 years, its ratification 3 years later and led to four additional protocols. Notably, prior to the Tehran Convention, all the Caspian states had never been members of the same international organisation, let alone one exclusive to what these states' themselves now call the 'Caspian Five' (Fjæstad, 2022).

Three features of the cooperative processes that led to the Tehran Convention and ecosystem cooperation are worth emphasising: (1) it represented the first sustained cooperation among the Caspian states; (2) saw the Caspian ecosystem becoming a distinct object of global governance and international intervention and (3) it knitted together previously uncooperative actors in a politically awkward space. Prima facie, the timing and intensity of cooperation among the Caspian states suggests that environmental cooperation led or fed into cooperation on security (2010) and then the legal convention (2018). Indeed, Bayramov (2020) makes a neofunctionalist argument that the technical

and relatively low salience of the character of environmental cooperation built trust and developed cooperative habits, facilitating negotiations in more contentious areas. We concur with Bayramov's (2020: 516) argument that IOs catalysed environmental cooperation and thus smoothed the path to the 2018 convention. However, we explore how the discourse and practices that grew out of the Tehran Convention have been consequential beyond providing a positive environment for tackling challenging political issues. As we explore below, the ecosystem cooperation also facilitated a restructuring of power relations between adjacent states and has served as an important discursive resource within national politics for demarcating the regional neighbourhood, symbolising its qualities and excluding outsiders.

Identifying, monitoring and managing the Caspian ecosystem

Turning to the our next analytical window, we zoom in upon the initiating processes – to a significant extent funded and orchestrated by GEF, the UNDP and UNEP – that provided the scientific-political rationale for the establishment of the treaty and its protocols and monitoring and assessment practices that became built into the treaty. Digging into technoscientific practices that were instrumental in establishing the Tehran Convention, we excavate the politics implicated in the bounding and binding of the Caspian Five. Indeed, by illustrating how viable, arguably more justifiable alternatives scales were eschewed and the processes through which the scales were reproduced and reified, we identify a pre-condition to the manifestation of ecosystem-shaped hierarchies within national elite discourses. In doing so, we highlight the importance for future research to pay heed to the ostensibly neutral scientific practices of rendering ecosystems as policy objects.

First, it is important to note that even after the *regional* level was agreed upon for Caspian cooperation, the specific scaling of the Caspian ecosystem as an object of governance remained to be settled. These scaling processes are especially visible within the first CEP-orchestrated project (1998–2002), which aimed to identify the major problems to be addressed by regional cooperation. The major output of this project was the TDAs of the Caspian Sea (TDA, 2002, 2007). Among the 100-plus pages detailing the sources of pollution, threats to the ecosystem and perceptions of stakeholders, the planning documents (e.g. TDA, 1998) and the TDA (2002) itself also discussed and determined *where* to bound the Caspian ecosystem. Crucially, the planning document states that:

> Conducting a comprehensive transboundary diagnostic analysis is only possible if an entire water basin or Large Marine Ecosystem and its associated drainage basin is covered under the study . . . This requires the commitment of all the countries that are located in the catchment basin or surround the shared marine area to participate in the process. (TDA, 1998: 60)

However, a few paragraphs later, we find that the five littoral states agreed that the TDA should only assess as 'far inland as the administrative boundaries of coastal provinces' (TDA, 1998: 60; see also TDA, 2002: 2). Indeed, while acknowledging that the extent of the Caspian River Basin meant that pollution emanated from several countries beyond the littoral states – including Turkey, Armenia and Georgia – the idea of including these
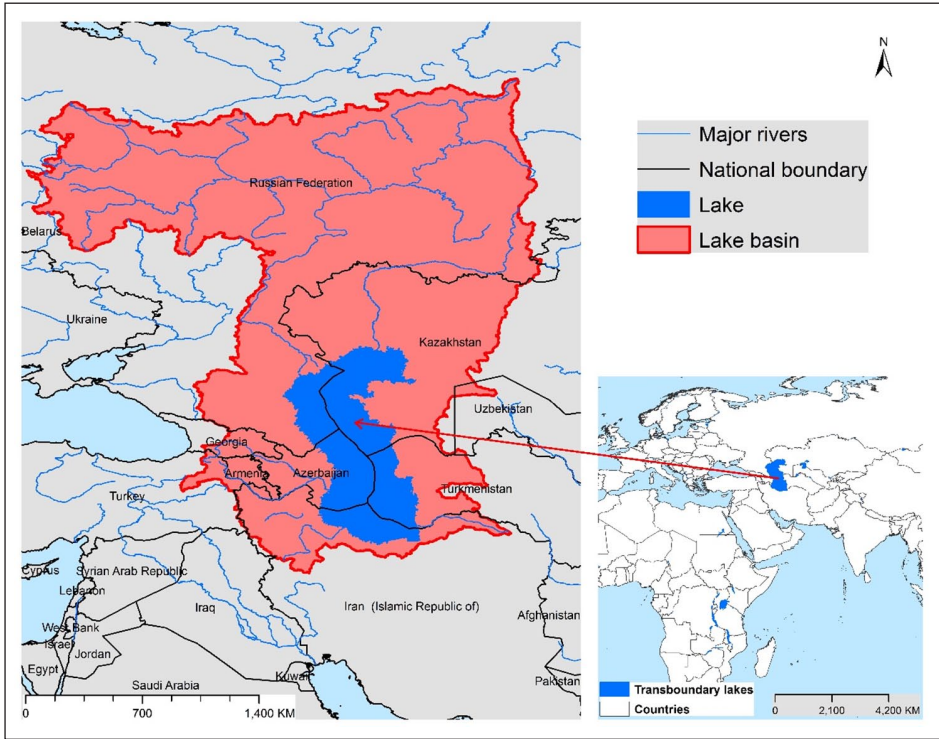
Figure 2. Map of Caspian Sea geographic information.
Source: http://ilec.lakes-sys.com/portals/lake_detail/28.

countries in the diagnostic analysis was ultimately ruled out on the grounds it was 'not practicable' (TDA, 2002: 2). A similar process of boundary drawing that excluded other potential stakeholders occurred when the TDA (2002: 33–34) discussed economic zones (Figure 2).

Following the TDA project, the geographic scaling of the Caspian ecosystem to the littoral states was reproduced via various scientific and bureaucratic processes of assessment and planning, and thus conventionalised and naturalised within Caspian environmental cooperation practices (e.g. UNDP, 2008; UNEP, 2015) and public information (e.g. SOE, 2011). Thus, while the immediately adjacent states may now appear as the natural political grouping for managing the Caspian ecosystem, a closer look at the processes that led to the establishment of the Tehran Convention reveals otherwise. Recent research suggests the continuing shortcomings of Caspian Sea ecosystem management stem partly from the unscientifically warranted exclusion of non-littoral states. As the Iranian researcher of Environmental Planning and Management Lobat Zebardast (2018: 110) writes,

> since a large portion of the water inflow of the Caspian Sea comes from the transboundary rivers, an integrated system for monitoring the state of the quality and quantity of water inflows

and outflows in the Caspian region should be established between the littoral states [and] countries that are located inside the basin.

She goes on to recommend precisely the kind of 'comprehensive' approach that the Caspian Sea states rejected for pragmatic or political reasons in the process leading up to the Tehran Convention (Zebardast, 2018: 116). Hence, the first product of Caspian transboundary ecosystem-based coordination was specific spatial bounding of the cooperation to the littoral states, which as we show below, was then reproduced by the more recognisably neofunctionalist practices that animated the practicalities of the cooperation from thereon in.

Beyond drawing political boundaries, legitimated if not necessarily scientifically justified by the ecosystem, Tehran Convention-related projects also utilise ecosystem science to generate economic interests in regional environmental cooperation. Indeed, the theory of ecosystem interdependence was crucial for welding the states' economic interests to a broad set of environmental cooperative activities. Reflecting a strong neofunctionalist logic, the project documents are quite explicit about their goal to instrumentalise concern for sturgeon fish stocks to incentivise broader ecosystem-based management efforts. The plans for the CaspEco project (UNDP, 2008: 26) outline its intention to '*link* biodiversity conservation and fishery production objectives *to advance* EBM [ecosystem-based management] in the Caspian Sea' (our emphasis). The TDA (2007: 5, our emphasis) neatly illustrates how these documents wed specific environmental problems to the health of the ecosystem as a whole and thus generate the need for an ecosystem management approach:

> The underlying and root causes of unsustainable bioresource utilization identified during the 2002 CEP TDA were poor regional management, overfishing, illegal fishing and pollution remain valid *but the productivity and integrity of the ecosystem is also now recognized as an underlying cause.*

Hence, uniting environmental problems under the ecosystem concept allowed the project to link economic interests with a broader set of environmental cooperative practices than would otherwise be the case.

Moreover, conceptualising the Caspian Sea's environmental problem in terms of ecosystem health operates as the key means of legitimating the geographic scale of the cooperation. As one of the planning documents warns, unless the Caspian States adopt a *regional* ecosystem management approach, they will struggle to 'integrate fishery management and biodiversity conservation objectives' (UNDP, 2008: 55). It is worth noting here that although ecosystem management of marine areas is both scientifically and politically contested (De Lucia, 2015; Wang, 2004: 57–60), within the Caspian Sea policy field ecosystem management is presented as the *only* scientifically approved option. Indeed, the planning documents elide the question of *whether* the ecosystem-based management plan envisioned is the optimal one available, moving straight to the technical questions of how to make it work in practice. A corollary to this is that comprehensive *regional* cooperation becomes the only scientifically legitimate means of solving the Caspian Sea's environmental problems.

Taken together, the project's neofunctionalist rationales generated economic incentives for careful long-term monitoring of the Caspian Sea and coordinating a complex array of collective management techniques (e.g. UNDP, 2008). The extent to which the cooperation was seen to depend upon comprehensive monitoring is reflected in how the project evaluations frequently assert that the long-term viability of cooperation requires establishing the long-term sustainability of monitoring mechanisms and information sharing (e.g. Fenton and Griffin, [CEPSAP] 2007: 40-1; UNEP, 2015: 7).[10] Indeed, the upshot of the ecosystem problem definition was to envision and legitimate a far more thoroughgoing and intensive set of regional cooperative practices than would be required under issue-specific cooperation or species conservation. As we will see, although the boundaries could and perhaps should have been drawn differently, it would also provide a discursive resource and logic for fostering a tighter regional in-group beyond the environmental field.

Enacting broad hierarchy: the Caspian Five and global actor hierarchies and participation

Our analysis of the early documents of international organisations facilitating Caspian cooperation illustrates how the privileging of the littoral states was not an inevitable effect of establishing environmental politics based in ecosystem thinking around the Caspian: the boundaries could have been drawn differently and different actors could have been privileged as essential. Ultimately, the ecosystem cooperation envisioned by the engaged international organisations and manifested in the Tehran Convention sought to transform the Caspian states into ecosystem managers, governing the sea with collectively generated big data and harmonised environmental policies. To explore whether and how ecosystem logic has led to the generation of new identities with hierarchical implications for the region we analysed elite national discourses of the Caspian states with a particular attention to the question of who should play a role in protecting and developing the Caspian.

The first finding of note is that the Caspian states frequently referred to their environmental cooperation as a demonstration of capacity to govern the region on both environmental issues and more broadly. This tallies with the expectations of the neofunctional approach and with Bayramov's (2021) findings from a process-tracing of the emergence of cooperation around the Caspian Sea. Throughout the 2010s, progress on the binding agreement on environmental cooperation and associated protocols are linked by Caspian actors to an optimism about their ability to resolve the overarching issue of the legal status of the sea. For example, Ilham Aliyev (2014a) said:

> Azerbaijan attaches great importance to cooperation in the environmental field and shares a common concern of littoral states about the current state of the Caspian environment. We appreciate the common desire to cooperate more effectively and contribute to the activities of the Framework Convention for the Protection of the Marine Environment of the Caspian Sea. Reaffirming our commitment to a consolidated decision adopted at the Baku summit, we are in favor of agreeing an appropriate width of national zones on the basis of 25 nautical miles, which includes the body of water to which the sovereignty of a littoral state applies.

Other countries make the connection even more explicitly. Iran's President Rouhani (2018a), at the signing of the treaty deciding the legal status of the Caspian Sea, posits environmental cooperation to be the driver of the Caspian Sea cooperation more generally:

> After the collapse of former Soviet Union, cooperation between the Caspian Sea littoral states started through the signing of 'Tehran Environment Convention' and it included a 25-article statement as the first political document signed between the five countries. In today's historical meeting, we will witness the signing of Caspian Sea Legal Regime Convention that will put emphasis on sovereignty, sovereign rights, eligibility and monopoly of the right to decide on the sea.

While Russia does not frame the Tehran Convention as the start of post-Soviet cooperation, high-level statements make repeated connections between environmental cooperation as a demonstration of the capacity to solve greater governance challenges in the region, often linking success and progress under the Tehran Convention to optimism about what regional cooperation can achieve.

For example, as early as 2007, following the ratification of the Tehran Convention, President Putin (2007a) assesses very positively the capacity of the Caspian Five to undertake environmental and broader political cooperation:

> Ecological security should be primary measure of all projects on the Caspian, especially in the spheres of energy extraction and transport. I suggest that projects that could have serious ecological consequences for the state of the whole Caspian Sea should not be realized without precautionary discussions in the frame of the 'Caspian 5' and consensual decision making in the 'interests' of our common sea – the Caspian . . . The Caspian is a sea of peace, stability, friendship and kindness.

Similarly, the shared challenge of governing the sea as opposed to land is seen by Russia as necessitating innovation and the reconceptualisation of national interests in ways that might be more conducive for collective action. In 2010, then President Medvedev (2010) noted, 'our obligations include not only dividing the water column to the seabed, but also in ensuring the protection of the unique ecology, using the natural resources of this Sea with care'. Emphasising the shadow of the future, Medvedev (2010) went on 'let us consider how we can assume additional obligations because, after all, we are talking not about our current affairs but our common responsibilities to the future generations of citizens of our countries'. Notably, Iranian national discourse envisions environmental cooperation in a similar manner: 'The promotion of environmental cooperation in the Caspian Sea region is a common task and duty of all littoral states' (Rouhani, 2017).

This takes us to our second point: national discourse about the Caspian not only highlights the importance and capacity of littoral states to govern the region collectively, it reminds us that the spatialising effect of ecosystem discourse operates in two directions. The first is straightforward: the ecosystem and the sea help discursively link the 'ingroup' of the Caspian states, creating a need for collective action, which in turn serves to symbolise their friendly relations. Indeed, this social function of regional environmental cooperation is manifested and amplified through the annual celebration of 'Caspian

Day', which marks the anniversary of the Tehran Convention entering into force. Under mottos, such as 'We are united and together in the protection of the Caspian Sea' and 'Caspian Sea is a Pearl of the Planet', coastal towns across the region undertake a series of educational and cultural festivities as well as conducting joint coastal clean-up activities to raise awareness of environmental issues afflicting the sea (CaspInfo.net, 2010). As the slogans illustrate, Caspian Day quite self-consciously aims to foster intersubjective agreement around a regional Caspian identity spanning across national borders.

However, as social theorists remind us, every new self needs an Other. This second side of the coin is most readily visible in Russian discourse. As relations between Russia and 'the West' worsened in 2014, the region became framed as an 'oasis of peace' in an otherwise complex field of geopolitical relations:

> The Caspian Sea and its wealth are the heritage of all our states, and we bear a joint responsibility before future generations to its enhancement and preservation. The Caspian region is, figuratively speaking, an oasis of peace and true good neighborliness. This stability is based on the careful and balanced attitude of the Caspian states, their peoples and their leaders to everything related to the Caspian Sea, whether it is security, economic or environmental issues. (Putin, 2014)

As the metaphor *oasis* indicates, Russia is drawing a discursive boundary between the peaceful Caspian and its apparently more conflictual surrounding environs. Turkmenistan's leader echoed this point: 'We are full of determination to increase multilateral interaction on solving all issues connected with the Caspian perspective . . . I am sure that the Caspian Sea is to remain the sea of peace, consent, neighbourliness and efficient international cooperation' (Berdimuhamedov, 2015). It is important to note that this sea of good neighbourliness is not seen as a given or as an eternal state of being for the area, but rather a phenomenon that has emerged despite contention and setbacks. The Azerbaijani president subtly brings this to recollection:

> At different stages of our interaction there have been various estimates of how feasible it is to reach a consensus on fundamental issues of our cooperation. I think that today's discussions, the decision and the documents signed make it clear for all that where there is political will, we can resolve all the problems of our interaction. The key to security in the Caspian Sea is our partnership both bilaterally and multilaterally. We in Azerbaijan are also very pleased that our neighbors across the Caspian Sea are also good partners between themselves. We always support each other and actively cooperate in international organizations. (Aliyev, 2014b)

By 2018, however, the framing of the sea as one of good neighbourliness is one to which all Caspian states adhere, with that particular phrase being used frequently in the national discourse of all five countries analysed.

Crucially, the creation of such an intramural, via the neighbourhood and the oasis of peace representations, also renders global actors as outsiders and the Caspian littoral states as insiders. For instance, in 2007, Russia emphasised that cooperation should be

based in not only existing diplomatic traditions, but on the experience of the many generations of people, who have been for centuries engaging in seafaring, fishing and trade on the Caspian. These people fully understand the special qualities of this unique and easily damaged natural monument. (Putin, 2007a)

The subtext is fairly straightforward: the littoral states possess privileged knowledge of the Caspian environment that trumps any outsiders'.

The growing political consolidation around the Caspian Sea and the resulting consequences for non-adjacent actors is a striking point of intersubjective agreement in the Caspian states' elite discourses. By 2018, all the Caspian states, except for neutral Turkmenistan, had publicly referenced their agreement about mutual security and the absence of non-regional security actors and non-Caspian flagged ships in the Caspian Sea. Iran's President Rouhani (2018b) is the most explicit and makes comparatively frequent mention of the importance of excluding non-regional actors:

The conspiracies of the Americans and even NATO was to be present in these waters and deploy their soldiers, frigates, helicopters and bases on the coasts of Caspian Sea. In this agreement, the five countries agreed to ban the presence of foreign vessels in Caspian Sea.

As early as 2007, Russia underlined coordinated action among the Caspian states to control access to the Caspian:

We consider it a necessity to reach inclusive, collective agreement amongst [all Caspian states] on the regulation of the Caspian. This was one of important motives for continuing these discussions . . . The participants at the summit arrived at the shared opinion on the question of the sovereignty of the Caspian littoral states over the usage of the Caspian Sea, including subsea resources. Shipping on the Caspian should only take place under the flags of the Caspian governments. (Putin, 2007b)

By 2018, even Kazakhstan, with its relatively omnidirectional, non-aligned foreign policy and close ties to multinational petroleum companies, includes the primacy of the littoral states in its summary of the region:

In this context, Nursultan Nazarbayev . . . has separately dwelled on the fundamental principles of the activities of the Convention's member countries. Among them is transformation of the Caspian Sea into a zone of peace, good-neighbourliness and friendship; its use for peaceful purposes; respect for sovereignty and territorial integrity; lack of presence of armed forces on the Caspian Sea that do not belong to the parties. (Nazarbayev, 2018)

Indeed, one striking commonality across the national discourses is that despite the Caspian states' frequent celebratory mentions of environmental cooperation, the IOs that have been instrumental in initiating and facilitating it are entirely excluded. The absence of reference to international organisations in the otherwise discursively rich and varied landscapes of foreign policy and domestic narratives around the Caspian Sea is striking. With the exception of Turkmenistan, none of the Caspian coastal states mention the role of international organisations in facilitating or supporting Caspian Sea cooperation. In other words, at the elite level, the Caspian states seem to have quickly taken to their new

role as ecosystem managers, and in the process airbrushed out the extensive outside help that enabled regional cooperation in the first place.

However, the Caspian Five's discourse of good neighbourliness was enabled by ecosystem cooperation – and its hierarchical implications – and cannot be fully understood without contextualising the Caspian Sea states, and their social position within international society. Indeed, in one of the early works in IR's hierarchy agenda, Zarakol (2010) draws an analogy between how neighbourhood stigmas and statuses are established and boundaries are reproduced and how stigmas can sometimes be effectively countered. In the Scandinavian context, Røren (2019) has highlighted that states' status-seeking can involve collective actions to boost 'neighbourhood' standing, recognising that all within it stand to gain. It is not difficult to make the case that upon entering international society in the 1990s, its existing members assigned the Caspian states a lowly position. As numerous scholars have pointed out, the Caspian states (and the surrounding Central East Asian states) have long been orientalised and stereotyped within what Heathershaw and Megoran (2011) call a 'discourse of danger' within Western policy circles. Meanwhile, the Great Game discourse conceives of the states as pawns in a potentially violent great game (Bayramov, 2021); while democratic transition scholarship, albeit well-meaning and more empirical, nonetheless defines post-Soviet countries by the extent to which they lag or lack (Buranelli, 2021). In light of this conventional wisdom, we argue that the Caspian Five's emphasis on good neighbourliness and state capacity are not only descriptions of a functional ecosystem segment but also claims to a social position that counters the prevailing and mostly negative narratives.

While it is questionable whether the Caspian Five's ecosystem cooperation is succeeding in countering these narratives – although UNEP's (2017) laudatory pronouncements on Caspian cooperation suggest it is not a total failure – it may still serve valuable legitimation purposes by providing a plausible discursive resource for re-evaluating and re-presenting the self to internal audiences (see Beaumont, 2020 on this function of status narratives). Moreover, it may – and in this way, we echo but invert Yao's (2019, 2021) argument – enable the Caspian states to fend off unwanted international interventions and actors. Although not yet rivalling Amazon and Arctic states' efforts to club together against global interventions (Paes, 2022b; Wilson Rowe, 2021), Caspian environmental cooperation has already been used to explicitly reject IOs' and non-Caspian states' efforts to address declining sturgeon stocks within international for a.[11] Meanwhile, as already outlined, the ecosystem cooperation helped pave the way for agreements that formalised the monopolisation of sovereignty over the sea.

Sceptics might reasonably ask how much ecosystem cooperation mattered among other high political processes going on at the same time. For instance, could the 56 meetings of the special working group on the Legal Status of the Caspian Sea and the 12 meetings of the foreign ministers have been the real driver of this Caspianisation discourse and associated broad hierarchy? We are doubtful for two reasons. First, although the working group met frequently, it remained deadlocked for decades and was characterised by contention and division. Moreover, the logic of these negotiations was partition: divide and recognise each other's rule. Indeed, upon learning that Iran still does not consider the legal status fully settled following the 2018 convention, Russia explicitly stated that future negotiations should be conducted on a trilateral basis, rather than dragging the northern states into it (Garibov, 2019: 5).

However, our argument is not that the ecosystem directly caused the formation of the Caspian in-group and the hierarchical structuring of relations both within and outside the region. The strongest version of our argument is that the emergence and reproduction of spatially bounded cooperative practices and broad hierarchy formation, justified in relation to the ecosystem, were necessary but not sufficient to the emergence and consolidation of the Caspian region in other domains. The drive to exclude extra-regional actors did indeed intersect with broader shifts in foreign policy preferences, including hedging against the West. For instance, by 2010 Russia's and Iran's relations with NATO were worsening and this provided additional impetus for excluding outside actors from the sea. Yet, at a minimum, the ecosystem cooperation provided discursive groundwork for these cooperative processes, generated a significant resource for a positive regional identity and provided an internationally legitimate – environmental – reason for exclusivity.

Conclusion

In sum, the case of Caspian environmental cooperation has shown how the spatialising practices introduced by IOs to establish an ecosystem-based governance approach were productive of similar national discourses depicting the privileged position of the Caspian Sea 'insiders'. Tracing the emergence of this ecosystem in-group via these practices, we showed how the specific boundaries of cooperation both relied upon and ignored ecosystem management expertise: political expedience delimited the boundaries that could and perhaps should have been drawn differently. Downstream, the regional political space carved out around ecosystem cooperation became naturalised and celebrated and proved useful beyond the environmental field. References to the ecosystem and ecosystem cooperation became emblematic of the discourse of peaceful neighbourliness, which emerged in the Caspian states' elite politics. Furthermore, we saw how success in ecosystem cooperation has become an important rhetorical resource for Caspian states in arguing for their privileged position – and adequate capacity – to govern the Caspian collectively. In line with this logic, the Caspian states' high-level national discourses systematically absented global environmental actors. Ultimately, we have shown the establishment of the Tehran Convention based on environmental cooperation facilitated and legitimised a broad hierarchy of ecosystemic insiders and outsiders: a significant spatial- and power-relational hierarchy.

Our case study makes a contribution to advancing the scholarship on broad hierarchies, which has hitherto focused on long-standing discursive structures that shape world politics and have evolved and become entrenched over long periods of time (from race to civilisation to gender to science). This research includes important studies of how broad hierarchies have been used to underpin authority claims over contested geopolitical spaces, helping to grease the wheels of great power and imperial interests (see Yao, 2021 on Antarctica, 2019 on the Danube). Yet, in all of these accounts, the material and natural world figures as a given – a preformed stage against which hierarchies are performed. In this article, we have illustrated the analytical value of considering how the natural world itself is mobilised by actors into a resource for enacting, upholding and reproducing broad hierarchies. In short, hierarchy lens illuminated the politics in ecosystemic politics in three analytically distinct but interrelated ways: (1) bounding of the

region in the first place, (2) the positive re-framing of the collective in-group vis-a-vis pre-existing narrative and (3) the use of ecosystem cooperation to buttress authority and exclude outside actors. Taken together, we suggest they constitute a promising analytical approach for studying the consequences of cooperation around ecosystems beyond the Caspian.

Indeed, building on our Caspian case study, we think there are theoretical and provisional empirical grounds to expect that the specific qualities of transboundary ecosystem cooperation generate peculiar but predictable effects – such as, but not limited to, the production of deep hierarchies – and are thus amenable to systemic study. First, compared to issue-specific environmental cooperation, ecosystems often imply closer cooperation between adjacent states. Ecosystems can thus be understood as a latent material structure that has spatialising consequences upon activation by ecosystem management discourse/practice. Second, as noted above, ecosystem management practices demands treating the ecosystem's components as an interdependent whole, thereby rendering valuable ecosystem services dependent upon preserving the otherwise 'non-valuable' facets of the ecosystem. Thus, ecosystem management generates economic incentives for unusually comprehensive cooperative activities, especially monitoring. Third, and relatedly, ecosystem management relies upon technoscientific knowledge to bind together the disparate components of the ecosystem, thus requiring and legitimating thorough standardised monitoring practices. Crucially, these ecosystem management practices are envisioned to be required indefinitely; it is thus not a coincidence that the Caspian states refer to preserving the ecosystem for *generations*. As liberals have long pointed out, generating a collective belief in the shadow of the future facilitates regionalisation.

With the political challenges of the Anthropocene mounting and regional ecosystem cooperation increasingly hailed as a solution, it is possible and perhaps even likely that a comprehensive reorganisation of global geopolitical space has begun. Although IR will no doubt play an important role in assessing whether these attempts at ecosystem cooperation work as planned, we consider it crucial to also investigate their broader power-political consequences. While making sense of this phenomenon has already begun in political geography (Wilson Rowe, 2021), this article has sought to expand this line of inquiry into IR by exploring and documenting the emergence of a broad hierarchy anchored in the ecosystem of the Caspian Sea. If ecosystemic politics can lead to a discursive reimagining of the Caspian – a region that for a long time was defined by its disagreement over whether the space was a sea or a lake and driven by a logic of partition – with accompanying political effects within and beyond the region, we reason that the hierarchy-producing effects of cooperation around ecosystems are likely to emerge elsewhere too.

As the creation of a hierarchy of insiders and outsiders may serve to wrest problem definition and authority from more global discourses or issue framings, it will be a particularly important phenomenon to come to grips with as the environmental and political consequences of the Anthropocene become increasingly apparent. Ultimately, by exploring the productive effects of ecosystem cooperation in terms of hierarchy, we extend the burgeoning research agenda seeking to account for hierarchy in its various guises in global politics (Mattern and Zarakol, 2016) while also attending to this scholarship's green blind spot. We also hope it might prompt scholars of the Anthropocene to reconsider whether IR's 'tool kit' is so outmoded after all.

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Notes

1. Indeed, of the 176 citations of Mattern and Zarakol's (2016) agenda-setting publication listed in Google Scholar as of 2022 only one connects hierarchy to environmental issues (see Wilson Rowe, 2021).
2. According to a Teaching Research and International Policy survey in 2016 most IR scholars rank climate change among the top three most important policy issues, yet only 4 percent identify the environment as their main area of research (Green and Hale, 2017: 473). Summarising pathways and future challenges for environmental politics scholarship, Biermann and Kim (2020: x) make a similar observation
3. Even if they no doubt provide insights into *how* it could occur if it did, neither neofunctionalists, neoliberal-institutionalists nor thin constructivists would consider non-democratic states a promising site for spillover, institutional-building or collective identity formation, respectively.
4. We have in mind theories which the political units of International Relations take as given.
5. Not all these works would self-identify as hierarchy-centric research, but they nonetheless generate analytical traction from theorising how material and/or symbolic stratification informs behaviour (Zarakol and Mattern, 2016: 630, 644–646).
6. We derived these documents by searching for 'Caspian' on the GEF, UNDP and UNEP websites, as well as manually searching through all English items on the Tehran Convention home pages, and the Caspian Environment Information Centre (CEIC).
7. The empirical analysis of national discourses is based on a corpus derived from the Caspian states' presidential websites, with the exception of Turkmenistan that does not have a presidential website. The presidential sites were searched with the English-language search word 'Caspian'. Kremlin.ru (Russia) was searched in Russian for Каспийский (Caspiiskii, an adjectival form of Caspian) with a secondary search to pick up other declensions of Caspian. For Turkmenistan, the MFA website was used. Quantity and date range of documents analysed were: Azerbaijan (2010–2021, 73 documents), Iran (2014–2021, 46 documents), Kazakhstan

(2010–2021, 35 documents), Russia (2002–2021, 214 documents) and Turkmenistan (2015–2021, 124 documents). We translated all quotes cited into English ourselves. The date range differs due to different archiving standards on the websites and this impacted our ability to identify the early emergence of ecosystem-related discourse in several of the countries, likely rendering conservative our claims regarding the role of ecosystem cooperation in the construction of hierarchy.

8. The Tehran Convention and its associated legal obligations constitute an example of narrow if weak hierarchy: states subordinate their sovereignty (at least on paper) to an overarching authority on the premise that coordinating activities will achieve mutual gains for all involved. In short, it is a legally binding contractual bargain, albeit one without substantive enforcement mechanisms.

9. CEPSAP is the acronym for the project: "Towards a Convention and Action programme for the Protection of the Caspian Sea Environment Project".

10. The Tehran Convention established a standardised approach to assessing and publicising 'the state of the environment' of the Caspian Sea (SOE, 2011, 2019) as well as a standardised mode of reporting national efforts to meet the convention's goals (e.g. COP 4, 2012).

11. See the summary reports from the Convention on International Trade in Endangered Species of Wild Fauna and Flora between 2006 and 2013, especially IISD (2009, 2011).

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