# Marist SV – Bronx Aff v1

## Contention 1 is Permits

#### Jeffrey Green explains in 2018 that:

Jeffery Green, 5-2-2018, "America’s critical minerals problem has gone from bad to worse," Defense News, https://www.defensenews.com/opinion/2018/05/02/americas-critical-minerals-problem-has-gone-from-bad-to-worse/, Date Accessed 10-9-2018 // WS

Unfortunately, America’s critical minerals problem has gone from bad to worse. The nation’s only domestic rare earth producer was [forced into bankruptcy](https://www.defensenews.com/opinion/2018/05/02/americas-critical-minerals-problem-has-gone-from-bad-to-worse/%E2%80%9Chttps%3A/na01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.latimes.com%2Fbusiness%2Fla-fi-molycorp-rare-earth-bankruptcy-20150625-story.html&data=02%7C01%7Cjaitoro%40mco.com%7C77a242acbcf24bec545608d5aca898cd%7C1d5c96e57ee2446dbed8d0f8c50edea5%7C1%7C1%7C636604762499108893&sdata=EIxPRS8J1xUT2B6zIGwme5hYPGjnAX6p095Fftd83aE%3D&reserved=0%E2%80%B3) in 2015 after China suddenly restricted exports and subsequently flooded the market with rare earth elements. Adding insult to injury, the mine was then [sold last summer for $20.5 million to MP Mine Operations LLC](https://na01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.mining.com%2Fmountain-pass-sells-20-5-million%2F&data=02%7C01%7Cjaitoro%40mco.com%7C77a242acbcf24bec545608d5aca898cd%7C1d5c96e57ee2446dbed8d0f8c50edea5%7C1%7C1%7C636604762499108893&sdata=eA5Vl6Xp7Ln2yd6pYQcjCUrnEYee5OorSuxENyXA4NU%3D&reserved=0), a Chinese-backed consortium that includes Shenghe Resources Holding Co. Now, according to [MINE Magazine](https://www.defensenews.com/opinion/2018/05/02/americas-critical-minerals-problem-has-gone-from-bad-to-worse/%E2%80%9Chttps%3A/na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.mining-technology.com%2Fprojects%2Fmountain-pass-rare-earth-mine-modernisation-project-california%2F&data=02%7C01%7Cjaitoro%40mco.com%7C77a242acbcf24bec545608d5aca898cd%7C1d5c96e57ee2446dbed8d0f8c50edea5%7C1%7C1%7C636604762499108893&sdata=ixUWOolEXJGJkKJD2%2F35TceEHLJbEfS5WPzejzgC7%2Bw%3D&reserved=0%E2%80%B3), this same mine is exporting critical minerals to a processing plant in China—because the United States cannot process or refine these materials at commercial scale. Without a dramatic change in [our] minerals policies, the United States will not be able to minimize the economic damage that will come when China decides to leverage its minerals monopolies against us. The first step to a whole-of-market approach to spur innovation in minerals production is removing regulatory hurdles that dissuade would-be investors. Most notably, the United States must accelerate its [mine permitting process](https://na01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.miningweekly.com%2Farticle%2Flengthy-permitting-process-affecting-investment-in-us-mining-2018-02-16&data=02%7C01%7Cjaitoro%40mco.com%7C77a242acbcf24bec545608d5aca898cd%7C1d5c96e57ee2446dbed8d0f8c50edea5%7C1%7C1%7C636604762499108893&sdata=Es0IM2XqNcFxBiwlsfgZZKimPu%2BkO6k9iJw08UBjij8%3D&reserved=0). The current seven to 10 year timeline is simply untenable. Australia and Canada adhere to similarly stringent environmental guidelines, yet maintain permitting processes that average just two years. The United States’ mine permitting process should not take five times as long. This easily fixed regulatory problem will go a long way toward attracting new entrants into the minerals supply chain.

#### In order to do this, Adam Ellington wrote at the end of September that:

Adam Ellington & Stephen Lu, 9-28-2018, "Deep-Sea Mining for Rare-Earth Metals Looms, as Do Environmental Questions," No Publication, https://www.bna.com/deepsea-mining-rareearth-n73014482856/, Date Accessed 9-29-2018 // JM

On Sept. 17, United Nations negotiators met in New York to kick off a [two-year process](http://sdg.iisd.org/events/first-session-of-the-intergovernmental-conference-on-bbnj/) aimed at developing rules to protect the ocean from overexploitation. The U.N. Convention on the Law of the Sea (UNCLOS) already includes a mandate to regulate mineral-related activities, but environmental groups claim those rules don’t go far enough. “UNCLOS has a clear mandate to protect the marine environment from harmful effects. But in the case of mining we really don’t have a good understanding of what those measures are, or what constitutes harmful effects,” said Xiao Recio-Blanco, director of the Ocean Program at Environmental Law Institute, based in Washington. Recio-Blanco said he has confidence in the International Seabed Authority, which oversees mining in international waters, but seafloor surveys are just now beginning to reflect the true abundance of life in areas marked for mining. “It’s not that we want to close the entire sea off to mining,” he said, “but we need better science to translate that understanding into specific rules and thresholds for environmental impacts that would lead to a suspension of activities.” The seabed authority is accepting comments on [a draft plan](https://www.isa.org.jm/news/stakeholders-invited-comment-revised-draft-regulations-exploitation-mineral-resources-area) for seabed mining until Sept. 30. Its goal is to release final rules by 2020. To date, the authority has approved 29 exploration contracts in international waters. However, since the U.S. Senate never ratified UNCLOS, American companies aren’t legally permitted to apply for prospecting contracts in international waters. But that doesn’t preclude U.S. companies from conducting mining operations inside the country’s 200 nautical mile exclusive economic zone. “But that’s not really happening either,” said James Hein, a research geologist at the USGS’s Pacific Coastal and Marine Science Center in Santa Cruz, Calif. “Congress has been passing all of these [critical metals laws](https://www.congress.gov/bill/115th-congress/house-bill/1407/text), but they’re not doing the things they should be doing to make progress in the marine environment,” Hein told Bloomberg Environment. He blames Congress for failing to fund the deep-sea surveys necessary to locate mineral deposits. “We can estimate what should exist in our own EEZ, the ridges around the Mariana Trench are thought to have the best ferro-manganese crusts the world. And companies from China, Korea, Russia, Japan have all taken out prospecting contracts just outside our EEZ,” he said.

#### Fortunately, UNCLOS resolves this because Katherine Liljestrand explains in 2018 that as a non-member:

Katherine Liljestrand, 2-8-2018, "The Deep-Sea Reasons for the Accession of the United States to the 1982 Convention on the Law of the Sea," Georgetown Environmental Law Review, https://gelr.org/2018/02/08/the-deep-sea-reasons-for-the-accession-of-the-united-states-to-the-1982-convention-on-the-law-of-the-sea/, Date Accessed 9-17-2018 // JM

The 1982 Convention on the Law of the Sea is the world’s foremost international treaty with respect to the legal order for the global seas and oceans.[1] While most environmental issues covered by the United Nations Convention on the Law of the Sea (UNCLOS) have already been accepted by the United States as customary international law[2], there are two main environmental reasons why the United States should and needs to accede to the Convention with proper haste. Both of these environmental issues deal with the seabed and mineral resources in the deep sea. And while the Convention has already been signed by and transmitted to Congress by President Bill Clinton as of July of 1994[3], Congress has yet to vote on accession to the treaty.[4] The current Congress should strongly support the ascendance of the United States to UNCLOS and vote accordingly, as ascendance would put the United States in a more favorable position to influence and take part in both the present and the future of coastal shelf oil drilling and deep sea resource mining. The two main mechanisms of UNCLOS that deal with deep seabed issues are the Commission on the Limits of the Continental Shelf[5] and the Council of the International Seabed Authority.[6] While the United States remains a non-party to UNCLOS, access to these two bodies – and, subsequently, to the subject jurisdictions they cover – is denied. Firstly, the Commission on the Limits of the Continental Shelf[7] is the foremost international body which “consider[s] the data and other material submitted by coastal States concerning the outer limits of the continental shelf in areas where those limits extend beyond 200 nautical miles, and to make recommendations in accordance with article 76 . . . “[8] What this means is the Commission determines whether or not a country is able to claim its outer continental shelf (OCS) extends past the 200 nautical mile Exclusive Economic Zone (EEZ) thereby expanding its territorial rights to drill. As the United States is not currently a member of UNCLOS, the United States cannot currently claim any drilling rights over any potentially-extended continental shelf.[9] Also, as the United States is not on the Commission, the United States cannot nominate or elect experts to a seat on the Commission and thus has no say in the establishment of outer continental shelves for other countries[10], as when Russia submitted an overly expansive claim to its outer continental shelf.[11] The current administration seems to be moving forward with all hands on deck in regards to offshore oil drilling[12], so acceding to UNCLOS and nominating experts to the Commission could further those efforts. The United States needs to be on the Commission because its voice needs to be heard for the present and future of both our own extended continental shelf and the extended continental shelves of other countries. The second important environmentally-related mechanism the United States is missing out on is the Council of the International Seabed Authority and its unique process.[13] The International Seabed Authority is the primary body that deals with the Area.[14] The Area, as defined in Article I of UNCLOS, includes the seabed, ocean floor, and subsoil beyond the limits of national jurisdiction.[15] The International Seabed Authority is the international body that regulates and controls all mineral-related activities in the Area, and only parties to UNCLOS can sit on the Council.[16] The United States has a reserved, permanent spot on the Council due to having the largest economy at the time of UNCLOS’ ratification but is unable to take that spot unless it becomes a party to UNCLOS.[17] As of currently, the United States is missing out on partaking in the Authority’s defining of the future of seabed mineral mining. The International Seabed Authority issues permits to private parties – mainly companies – for the exploitation and mining of deep seabed minerals[18], such as the highly profitable polymetallic manganese nodules. It is the International Seabed Authority that determines how these permits are distributed and any restrictions on those with the permits.[19] In order for a private company to get a permit for deep sea mining, the company must be sponsored by a country to begin the application process with the International Seabed Authority. Thus [if we were to accede], United States companies [would] have no access to this process or the permits for deep sea mining. This hurts United States-based companies who could otherwise feasibly take part in the race for claiming highly valuable seabed minerals through excavation. While the United States did not deal with some of the original provisions – chiefly Article XI[20] – in the original Convention on Law of the Sea, these provisions were changed in 1994 through the Agreement on Implementation. The changes in the treaty were to the satisfaction of the United States, as President Clinton signed and transmitted the treaty to Congress as soon as the provisions in question were changed.[21] Congress should no longer delay voting in favor of the United States acceding to the United Nations Convention on the Law of the Sea. Today, the magnitude of the environmental issues relating to coastal shelf drilling and deep sea mining is great enough that it is imperative for Congress to actually initiate a vote and formally adopt the United Nations Convention on the Law of the Sea.

#### Commercialization is ready, safe and easy – Ellington furthered in September that:

Adam Ellington & Stephen Lu, 9-28-2018, "Deep-Sea Mining for Rare-Earth Metals Looms, as Do Environmental Questions," No Publication, https://www.bna.com/deepsea-mining-rareearth-n73014482856/, Date Accessed 9-29-2018 // JM

Once thought too expensive and too difficult, commercial scale mining of the deep sea is poised to become a reality as early as 2019. But scientists warn reaching rare minerals on and under the sea floor could cause irreversible damage to an environment that is still poorly understood. As new technologies come online, mining companies are probing depths from 5,000 to 16,000 feet to expose new deposits of manganese, copper, cobalt, and other rare-earth minerals necessary to build everything from smartphones to solar panels to electric cars. “People are making new discoveries almost every week; we’re nowhere near plateauing in our understanding of these deep-sea ecosystems,” said Lisa Levin, a biological oceanographer at the University of California-San Diego. Given how [little is known](https://www.eurekalert.org/pub_releases/2017-08/uoo-sgi081817.php) about deep-sea life, Levin told Bloomberg Environment that she feels mining should be delayed until regulators have a better grasp of biological consequences outside the mining footprint. “I just think we need to understand more about how these habitats interact, and how long they take to recover before we risk doing irreversible damage through mining.” ‘Plumes of Mud’ But compared to terrestrial mining, seafloor operations should have a smaller environmental footprint, potential ocean mining companies say. “These include effectively no mine tailings, minimal pre-stripping of sediment, no vegetation stripping or water catchment issues, no permanent on-site infrastructure such as roads, power lines, or buildings " said Noreen Dillane, a spokeswoman for Nautilus Minerals Inc. In Clarion-Clipperton Fracture Zone, a 1.7 million square mile deep-sea plain between Hawaii and Mexico, the U.S. Geological Survey estimates that there are about 21 billion metric tons of so-called “polymetallic nodules,” tennis-ball-sized chunks of ore high in manganese, nickel and copper, most of which are simply lying on the bottom of the Pacific. Mining these nodules should have a “light touch,” according to Greg Stone, chief ocean scientist for DeepGreen, a seafloor mining startup based in Vancouver. “A plume of fine sediment will be kicked up when a nodule is removed,” Stone told Bloomberg Environment. But the sediment resettles in a matter of days. Any creatures that live on the nodules will be killed, but overall the impacts aren’t expected to be significant, he said. “We don’t have all the answers yet, but at least we’re not talking about mountains full of arsenic and toxic waste and blasting,” he said. “We’re talking about plumes of mud.”

#### This means it’s only good news for REM mining – it accelerates the adoption of Carbon Capture Systems. Robert Walton explains this month that Trump has expanded:

Robert Walton, 10-1-2018, "DOE moves to slash cost of carbon capture for coal-fired power plants," Utility Dive, https://www.utilitydive.com/news/doe-moves-to-slash-cost-of-carbon-capture-for-coal-fired-power-plants/533510/, Date Accessed 10-9-2018 // JM

The U.S. Department of Energy (DOE) on Thursday announced up to $30 million in federal funding for research into carbon dioxide (CO2) capture technologies, specifically solvent, sorbent and membrane technologies that could help keep coal-fired generation competitive. President Donald Trump campaigned hard on saving the coal industry and often [talks of clean coal](https://www.utilitydive.com/news/trump-touts-end-of-war-on-beautiful-clean-coal-in-state-of-the-union/516000/), but the costs of capture technology have been [high enough to keep utilities from embracing it](https://www.utilitydive.com/news/congress-doe-continue-carbon-capture-push-but-utilities-wary/524375/). DOE said the new funding opportunity aims to directly address such limitations by supporting development of "technologies that can significantly reduce the cost of CO2 capture from coal-fired power plants." The White House is not letting up on its efforts to turn around the decline of coal-fired power plants. Though direct efforts to keep plants from closing have so far [stayed under wraps](https://www.utilitydive.com/news/trump-administration-preparing-2-year-coal-nuke-bailout/524788/), Trump has been able to ease some regulations on coal plants and his administration continues to support research in the sector. A year ago, Secretary of Energy Rick Perry announced [$36 million in funding](https://www.utilitydive.com/news/despite-setbacks-doe-continues-funding-carbon-capture-research/505759/) for advanced carbon capture technologies. About a month later, DOE made $26 million available for projects under an Office of Fossil Energy funding opportunity announcement named "[Novel and Enabling Carbon Capture Transformational Technologies](https://www.energy.gov/articles/department-energy-announces-26-million-funding-opportunity-transformational-carbon-capture)." The announcement last week would bring the total funding under that title to $56 million. The funding opportunity is specific about what projects it is looking for within the technology subtopics. For solvents, projects must "support the development of high-performance capture systems via the design of new solvents and solvent mixtures with the necessary property combinations to lead to transformational technology development." For sorbents, which can absorb liquids and gases, DOE said it wants to support development of "tailor-made sorbent materials targeted to specific carbon capture applications," as well as development of sorbent materials that show high levels of reactivity and recyclability. Research involving membranes will include the development of new materials with "improved performance, while development of new process designs should reduce pressure drop and energy consumption." Hybrid systems are also eligible, DOE said, adding that the three technology types eligible for funding are capable of bringing about "revolutionary step-change reductions in carbon dioxide capture costs and energy penalties." Earlier this year, Congress [passed an extension of the 45Q carbon capture tax credit](https://www.utilitydive.com/news/congress-doe-continue-carbon-capture-push-but-utilities-wary/524375/), but [however] the incentive has not garnered much enthusiasm from power generators, who lack sufficient policy drivers to reduce their emissions as the technology is still too expensive.

#### This is because John Drexhage explains that the:

John Drexhage, June 2012, “The role of minerals and metals in a low carbon economy”, International Council on Mining & Metals, Date Accessed 9-20-18 // JM

The wide-scale introduction of [carbon capture system] CCS, as anticipated in IEA scenarios towards the middle of the 21st century, would similarly increase the demand for many metals. A 2011 study into metal requirements of low carbon energy by R. Kleijn et al estimates that applying CCS technology would increase metal requirements by 10–30% compared with the current electricity mix. This is due to the additional infrastructure needed to capture, transport and store CO2 emissions. The exact trajectory and proliferation of these different low carbon power generation and storage options is not yet fully known. However, according to expert assessments, their uptake is crucial for making the transition to a low carbon economy. Each option will have a different mineral and metals profile and further work is required to understand the potential implications on metals demand if these technologies are introduced at a large scale.

#### With a domestic supply, we would be able to adopt CCS. That’s huge as CCES indicates these systems:

Center for Climate and Energy Solutions, 2017, "Carbon Capture — Center for Climate and Energy Solutions," https://www.c2es.org/content/carbon-capture/, Date Accessed 9-18-2018 // WS

Carbon capture, use, and storage technologies can capture more than 90 percent of carbon dioxide (CO2) emissions from power plants and industrial facilities. Even as nations diversify their energy portfolios, fossil fuels are expected to meet a majority of the world’s energy demand for several decades. Accelerating deployment of carbon capture technology is essential to reduce emissions from these power plants, and from industrial plants like cement and steel manufacturing. More than half of the models cited in the [Intergovernmental Panel on Climate Change’s Fifth Assessment Report](https://www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_full.pdf) required carbon capture[ is also required to] for a goal of staying within 2 degrees Celsius of warming from pre-industrial days. For models without carbon capture, emissions reduction costs rose 138 percent.

#### Adam Vaughan terminalizes this in 2009 that:

Adam Vaughan, 5-12-2009, "Cleaner air from reduced emissions could save millions of lives, says report," Guardian, [https://www.theguardian.com/environment/2009/may/12/emissions-pollution-premature-deaths, Date Accessed 8-21-2018 // WS](https://www.theguardian.com/environment/2009/may/12/emissions-pollution-premature-deaths%2C%20Date%20Accessed%208-21-2018%20//%20WS)
Tackling climate change by cutting greenhouse gas emissions could save millions of lives because of the cleaner air that would result, according to a recent study. Researchers predict that by 2050, about 100 million premature deaths caused by respiratory health problems linked to air pollution could be avoided through measures such as low emission cars. The economic benefits of saving those lives in developing countries such as China and India could also strengthen the negotiating hand of the UK and Europe at a crucial UN climate summit in Copenhagen this December. Johannes Bollen, one of the authors of the report for the Netherlands Environment Agency, said the **[approximately] 100 million early deaths could be prevented by cutting global emissions by 50% by 2050[.]**,a target consistent with those being considered internationally. The reports warns that if governments continue with business-as-usual energy use, then population growth, ageing demographics and increased urbanisation will cause premature deaths from pollution to increase by 30% in OECD countries, and 100% outside the OECD. The study also has implications for which technologies are chosen to reduce CO2 and other greenhouse gases. The study points out that while carbon capture and storage technology can capture CO2, it does not usually trap other air pollutants. Last month, the energy and climate minister, Ed Miliband, put "clean coal" at the centre of UK energy policy by pledging no new coal-fired power stations would be built without at least partial CCS.

## Contention 2 – High Seas

#### Zhang Chun indicated in September that:

Zhang Chun, 9-5-2018, "Negotiations start on a high seas treaty," chinadialogue ocean, https://chinadialogueocean.net/4326-an-international-treaty-on-the-high-seas-is-the-duty-of-every-nation/, Date Accessed 10-9-2018 // JM

The [UN Convention on the Law of the Sea](http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm) (UNCLOS) guarantees countries the freedom to fish, travel and lay cables in the high seas. It also defines the responsibilities of nations with respect to their use of the ocean, establishing guidelines for businesses, environmental protection, and the management of natural resources. But technological advances are opening up the seabed to another freedom: extraction of mineral resources. Over ten countries, including China, Korea, Japan and Germany, are currently prospecting for mineral resources in the Atlantic, Pacific and Indian oceans. The minerals and rare earth metals they gather are valuable components in everyday items like electrical wiring to more complex industrial machinery, and even renewable energy components. At the moment there is no requirement for operators to submit an environmental impact assessment before starting deep-sea mining, and no overarching agreement to protect biodiversity on the high seas. Under UNCLOS, almost 20 international organisations manage human activities on the high seas, but they are restricted in their scope. For example, the International Maritime Organization manages safety and prevention of pollution in the shipping sector, whereas regional fisheries management organisations oversee specific fish populations. But many forms of marine life are migratory and frequently move between different habitats. Depending on the method of calculation used, only [2-7%](https://earther.gizmodo.com/it-turns-out-weve-only-protected-2-percent-of-the-ocean-1823806943) of the ocean is protected – and less than 1% of the high seas [are protected]. “Our battlefield is very fragmented,” says Duncan Currie, a marine law specialist and advisor for the High Seas Alliance and Deep Sea Ocean Coalition, describing the challenge of high seas conservation. There is an urgent need for a new international consultation mechanism for the sustainable exploitation of resources in the high seas.

#### And, Alastar Bland indicates:

Alastar Bland, 8-15-2018, "Could the High Seas Be Closed to Fishing?," Oceans, https://www.newsdeeply.com/oceans/articles/2018/08/15/could-the-high-seas-be-closed-to-fishing, Date Accessed 10-10-2018 // JM

MOMENTUM IS GROWING for a radical yet potentially realistic proposal to close international waters to commercial fishing. The idea first began to snowball in 2014, and since then more and more scientists and conservationists have joined the call to transform the high seas – the ocean beyond the national jurisdiction – into an enormous marine reserve. Fishing interests are likely to fight the proposal, but according to a rapidly growing body of research, science supports such a move. “Fishing the high seas just doesn’t make much sense,” said [Enric Sala](https://www.nationalgeographic.com/expeditions/experts/enric-sala/), a marine ecologist, National Geographic explorer-in-residence and one of the leading proponents of a high seas fishing ban. “It’s just a few countries monopolizing the global commons.” New [research](http://advances.sciencemag.org/content/4/8/eaat8351) shows that not only are those [unfortunately] nations [like] – China, Taiwan, South Korea, Spain and Japan – taking what under [are using] international law belongs to all fishing countries, they are doing so without providing the world with a significant amount of seafood. In fact, according to a recent [analysis](https://www.sciencedirect.com/science/article/pii/S0308597X1730177X), fishing the high seas wouldn’t even be [commercially feasible](https://www.newsdeeply.com/oceans/articles/2017/12/14/go-fish-international-talks-to-ban-harmful-fisheries-subsidies-collapse) without large government subsidies, mainly to pay for fuel so that vessels can make long journeys to remote regions of the ocean. Though high seas catches may be small, the conservation gains potentially to be had from banning high seas fishing could be huge. A [study](http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1001826) published in 2014 in the journal PLOS Biology concluded that prohibiting fishing on the high seas would eventually boost fish stock biomass by more than 150 percent. Sala said part of this benefit would come from the elimination of deep-sea trawling, which produces large amounts of discarded bycatch of nontargeted species. The push for a fishing ban comes as the United Nations convenes next month in New York City to begin two years of negotiations to [draft a high seas biodiversity treaty](https://www.newsdeeply.com/oceans/articles/2017/07/25/u-n-moved-to-protect-60-of-the-ocean-and-the-world-hardly-noticed). Among other things, negotiations will focus on protocols to establish marine protected areas on the high seas.

#### Which, Olivia Heffenen explained would be:

Olivia Heffenen, 9-7-2018, “U.N. Makes a Bold Move to Protect Marine Life on the High Seas,” https://www.scientificamerican.com/article/u-n-makes-a-bold-move-to-protect-marine-life-on-the-high-seas/

By the end of the U.N. meeting, delegates expect to have thrashed out the bones of an agreement, which will then be drafted and circulated to nations for review before the next summit in April 2019. The treaty is likely to be an extension of the U.N. Convention on the Law of the Sea (UNCLOS), which was agreed to in 1982 and came into force in 1994 to set limits on ocean activities. That agreement does not cover biodiversity, however.

#### UNCLOS is vital to high seas governance as Crow White explains in 2014 that:

Crow White & Christopher Costello, March 2014, “Close the High Seas to Fishing?”, PLOS, Volume 12, Issue 3, <https://journals.plos.org/plosbiology/article/file?id=10.1371/journal.pbio.1001826&type=printable>, Date Accessed 10-10-2018 // JM

While a complete policy analysis is beyond our scope, a few comments are worth noting. Closing the HS to fishing may seem politically unviable, partly because UNCLOS recognizes the freedom to fish there by all nations [3]. However, UNCLOS also requires ecosystem protection and equitable and efficient utilization of the ocean’s resources. Thus, there is demand for a new legal instrument for HS [high seas] governance [34,35]; it could support a HS closure to meet the UNCLOS equity, economic, and conservation objectives. First, gains from a HS closure are attributable to fish spillover into EEZs, thus although not fishing in the HS, the freedom to fish resources from the HS is maintained. Second, the closure may only apply to mobile fishery species (and perhaps over-exploited by-catch species), and not sessile species (S = 1) where fishery value would be reduced (Figure S4). Third, a portion of the gains from closing the HS could be distributed among landlocked nations in a fashion similar to existing transfers for transboundary fisheries [36]. Finally, although perfect compliance with a HS closure may not be necessary for gains to emerge (Figure S6), enforcement is a concern [8,25]. Yet major advances in fishery surveillance technology [23], recent increases in the scope and use of agreements on the HS (including with MPAs) [8,23,25,37] and perhaps part of the fishery gains due to the HS closure, could be used to support its enforcement. Research on the viability of these options would contribute substantially to our understanding of the political and economic feasibility of closing the high seas.

#### However as a non-party to UNCLOS, we are not in these negotiations and thus can’t ensure a ban happens. Affirming would resolve this as Kate Higgins-Bloom concluded in September in order to solve:

Kate Higgins-Bloom, 9-12-2018, “Food Fight ", <https://foreignpolicy.com/2018/09/12/food-fight-illegal-fishing-conflict>, Date Accessed 9-26-2018 // JM

These measures will help, but they’re not enough. Governments around the world must take further steps to prevent a fish war. First and foremost, the United States must reinforce its commitment to the international rules-based order that has governed the maritime domain for decades. It should do so by vigorously upholding rulings by the IMO, agitating for increased transparency and accountability for states that license merchant ships at the WTO, challenging excessive maritime claims around the world, and finally ratifying UNCLOS. To follow through on these commitments, the United States and its partners should also strengthen their own coast guard forces, continue to build partner capacity across the Indo-Pacific, and invest in science, data collection, and information sharing.

#### Our accession is critical to the ban as we’ve empirically led fishing bans in negotiations elsewhere. David Balton explains in late September that:

David Balton, 9-28-2018, "America Must Act on the North and South Poles," New Security Beat, https://www.newsecuritybeat.org/2018/09/america-act-north-south-poles/, Date Accessed 10-9-2018 // JM

The Arctic Council has done valuable work in promoting environmental research and developing pathways to sustainable, responsible economic growth in the Arctic. Under U.S. leadership, the Council has also served as the forum for negotiating three binding agreements dealing with search and rescue, oil pollution and scientific cooperation. America has also [we] led in producing a visionary agreement to prevent unregulated fishing in the Arctic Ocean, pushed the International Maritime Organization to strengthen rules for safe polar shipping, and spearheaded the creation of the world’s largest marine protected area in the Ross Sea off of Antarctica. This brand of proactive, far-sighted U.S. leadership seems to be faltering at a moment when developments in both areas require it urgently. The alarming impacts of a warming climate at both poles—and the consequences of such warming on the rest of the world—are not “fake news.” Rapidly rising temperatures in the North are melting sea ice at record rates. Even more worrisome are two positive feedback loops. First, less ice covering the sea and land leads to less reflectivity of the sun’s rays, which in turn leads to more warming and increased melting. Second, the thawing permafrost releases more greenhouse gases, also leading to greater warming.

#### This fishing ban in the high seas is crucial to all fish stocks – Vicky Lam indicates that:

Louise Teh, Vicky Lam, et al, 12-29-2016 “Impact of High Seas Closure on Food Security in Low Income Fish Dependent Countries,” PLOS, <https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0168529&type=printable>, Date Accessed 10-10-2018 // JM

The sustainability of high seas fisheries is of concern because of increasing fishing pressure, inadequate management, and the tendency for deep sea fishes to have long lived life histories which make them vulnerable to overfishing [[8](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0168529#pone.0168529.ref008),[9](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0168529#pone.0168529.ref009)]. Some high seas species, especially commercially important tunas and billfishes, forage both in the high seas and Exclusive Economic Zones (EEZs) of coastal nations. Overexploitation of high seas fish stocks can therefore affect the availability of fish in countries’ EEZs. Recent proposals to close the high seas to fishing have indicated that this may be beneficial for the rebuilding of fish biomass, increase the quantity and improve the distributional equality in global fisheries catch, and increase the resilience of fish stocks to climate change [[10](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0168529#pone.0168529.ref010)–[12](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0168529#pone.0168529.ref012)]. For instance, Sumaila et al. [[11](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0168529#pone.0168529.ref011)] found that [in fact] biomass spillover from closing the high seas would benefit the domestic fisheries in 120 maritime countries under a scenario in which post high seas closure catches increased by 42%. At the same time, it would result in net losses for 65 countries, particularly those which specialise in fishing the high seas, such as Japan, China, and Spain.

#### Higher fishing yields produces two impacts. First, economic benefits in less developed countries. Rashid Sumaila indicates in 2015 that:

Rashid Sumaila, 2-12-2015, "High seas fishing ban could boost global catches, equality," ScienceDaily, https://www.sciencedaily.com/releases/2015/02/150212092502.htm, Date Accessed 10-10-2018 // JM

Closing the high seas to commercial fishing could be catch-neutral and distribute fisheries income more equitably among the world's maritime nations, according to research from the University of British Columbia (UBC). The analysis of fisheries data indicates that if increased spillover of fish stocks from protected international waters were to boost coastal catches by 18 per cent, current global catches would be maintained. When the researchers modelled less conservative estimates of stock spillover, catches in coastal waters surpassed current global levels. "We should use international waters as the world's fish bank," says U. Rashid Sumaila, director of the UBC Fisheries Economics Research Unit and lead author of the study. "Restricting fisheries activities to coastal waters is economically and environmentally sensible, particularly as the industry faces diminishing returns." The findings appeared today in Scientific Reports, published by Nature Publishing Group and will be presented February 13 at the 2015 annual meeting of the American Association for the Advancement of Science (AAAS). The study also indicates that a high-seas moratorium would improve fisheries income distribution among maritime nations. Currently, 10 high seas fishing nations capture 71 per cent of the landed value of catches in international waters. Under all scenarios considered by the researchers, European Member States, Group of Eight nations, and least developed fishing nations would benefit the most from a closure. Under a catch-neutral scenario, the United States, Guam and the United Kingdom would benefit the most, each with potential increases in landed values of more than $250 million (USD) per year. Canada would see an increase of $125 million (USD) per year. While closing the high seas would benefit some countries, others stand to lose significant fisheries income. South Korea, Taiwan and Japan would each see a decrease in catch values of at least $ 800 million (USD) per year in a catch-neutral scenario. Countries that sail vessels under flags of convenience would also be hard hit. While this figure is not insignificant, Sumaila points out that the high seas belong to the world and currently only a few countries benefit from the fish resources. Countries fishing in the high seas will have to give something up to achieve higher levels of food security and profits globally. The authors acknowledge that implementing a high seas ban would be a major undertaking, but argue that the ongoing expansion of human activities into the oceans may soon require major reform to the governance of international waters regardless. Penalties imposed on illegal fishing could offset administrative and operational costs.

#### Specifically, Vicky Lam concludes that:

Louise Teh, Vicky Lam, et al, 12-29-2016 “Impact of High Seas Closure on Food Security in Low Income Fish Dependent Countries,” PLOS, <https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0168529&type=printable>, Date Accessed 10-10-2018 // JM

Fourteen countries with projected catch gains did not consume straddling taxa domestically, but could potentially improve their food security indirectly through the projected increase in revenues, incomes and profits generated by straddling taxa. Half of these countries were located in Africa, with the remainder being Asian, Pacific island, or Caribbean countries ([Table 4](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0168529#pone-0168529-t004)). Projected landed value gains for these countries ranged from a low of 2.4% to 24% relative to the status quo, under the 20% catch gain scenario, and from 10% to 51% under the 42% catch gain scenario ([Table 4](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0168529#pone-0168529-t004)). More than half (57%) of the countries were highly fish dependent LDCs (HFDLDCs), and another 29% were LDCs. On the other hand, 42% of the countries with projected losses did not consume straddling taxa domestically. Most of these countries were Pacific Island states, and would stand to suffer indirect food security losses, through the loss in trade of straddling taxa or reductions in fishing access fees. The economic and income multipliers indicate the impact an increase in fisheries output will have on fisheries related economic activities and the household income of fishery workers [[20](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0168529#pone.0168529.ref020)]. Income multipliers for all countries ranged from 0.05 to 0.84, while economic multipliers ranged from 0.28 to 3.34. This means that, depending on the country, a one dollar increase in fisheries sector output (measured by landed value) could potentially generate 5 to 84 cents in household income output, and 28 cents to $3.34 [a 300% return] in economic output. Nigeria appears to have the lowest income effect among the countries considered here, while Vietnam had the highest ([Table 4](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0168529#pone-0168529-t004)). This suggests that an increase in fisheries landed value in Vietnam could potentially result in higher increases in household incomes relative to Nigeria, thereby providing Vietnamese fishery households with a better opportunity for improving their food security. Similarly, Vietnam also had the highest economic effect, while Sierra Leone had the lowest.

Second, millions die of hunger. Richard Oppenlander explains:
Dr Richard Oppenlander 4-22-2012, "Comfortably Unaware :: The World Hunger-Food Choice Connection: A Summary," No Publication, http://comfortablyunaware.com/blog/the-world-hunger-food-choice-connection-a-summary/, Date Accessed 10-10-2018 // WS

During many of my lectures, I have been asked to discuss world hunger as it relates to our food choices because it is a very serious and complicated issue. One billion people in the world suffer from hunger and six million children will die from starvation this year, as they did in 2011. The reality of these figures should be as startling to you as they are to me. We all seem to have difficulty understanding how our choices, particularly regarding items we consume such as food, could possibly have an impact on something or someone elsewhere in the world. It is so very difficult to see, feel, or extend beyond the microcosm or bubble each of us finds ourselves living within. After all, if it is not directly in our sight, it must not real. Although having many layers of complexity, to most observers the reason we have world hunger is because of poverty. While on its simplest level this is true, animal based food production systems are directly responsible for many factors affecting hunger, starvation—and even poverty, which then, cycles itself back to hunger. This correlation between animal (livestock and fish) based food production systems and world hunger is, of course, fueled by the demand for these products and can be found in generalized global factors as well as on a very local basis or regionally within countries where hunger rates are high. Together, these two categories of factors (global and local) insidiously manifest themselves in many ways. More than 66% of the world’s poorest people (those living on $2 or less per day) live in rural areas and rely on natural resources for their existence**.** [since]Global demand and production of fishand livestockhas reduced traditional fishing stocks and decimated coral reef systems for indigenous people living on coasts and islands**,** shriveled and segmented million year old forests**.** This will only exacerbate[ing]e world poverty and hungerbecause while remote from those who consume animal products, it is the world of the indigenous and the very natural resources they have relied on for centuries.

# Extra cards

#### Mallory Pickett explains on September 17 that:

Mallory Pickett, 9-17-2018, "To Stop Overfishing in International Waters, Researchers Are Using Birds as Spies," Slate Magazine, https://slate.com/technology/2018/09/overfishing-surveillance-birds-cameras-drones.html, Date Accessed 10-9-2018 // JM

The high seas are probably the most lawless place left on Earth. They’re a portal back in time to the way the world looked for most of our history: fierce and open competition for resources and contested territories. Pirating continues to be a way to make a living. It’s not a complete free-for-all—most countries require registration of fishing vessels and enforce environmental protocols. Cooperative agreements between countries oversee fisheries in international waters. But the [best data available](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0004570) suggests that around 20 percent of the global seafood catch is illegal. This is an environmental hazard because unregistered boats evade regulations meant to protect marine life. And it’s an economic problem for fishermen who can’t compete with boats that don’t pay for licenses or follow the (often expensive) regulations. In many developing countries, local fishermen are outfished by foreign vessels coming into their territory and stealing their stock. Time is running out to impose order on the situation: [Thirty percent of fisheries](http://www.fao.org/news/story/en/item/1144274/icode/) are on the verge of collapse and the number of people reliant on fish protein is [over 1 billion, and growing](http://www.fao.org/news/story/en/item/231522/icode/).

#### John Pastor indicated that:

John Pastor, 3-14-2016, "With rare earth minerals in short supply, researchers seek ways to extract them from coal," No Publication, https://vtnews.vt.edu/articles/2016/03/research-rareearth.html, Date Accessed 9-11-2018 // JM

 “The majority of rare earths is produced in China as byproducts,” said Yoon, who is the director of the Center for Advanced Separation Technologies at Virginia Tech. “With the recent closure of the rare earth mine in California, the U.S. relies more heavily on imports. It will be good for the country if we can develop an advanced separation technology to extract the critical materials from coal as byproducts, particularly the high-value rare earths [are] essential for advanced manufacturing industries.” The issue of domestic production affects matters concerning development of renewable energy resources and national security, the researchers said. “Domestic supply of rare earth materials is critical for the U.S. manufacturing industry,” said U.S. Rep. Morgan Griffith, who represents Virginia’s 9th district in the U.S. House of Representatives. “As the nation moves toward electric-drive vehicles, wind farming, and other sustainable energy measures, it is important to develop a reliable source of essential materials. In addition, we will develop new, cleaner applications for coal and coal byproducts to revitalize the mining industry.”

#### There are two impacts to this growth. First

#### As global wealth accumulates, overfishing becomes an inevitability. Not even fish farming can keep up with new demand. Kate Higgins-Bloom indicates a couple weeks ago that:

Kate Higgins-Bloom, 9-12-2018, “Food Fight ", <https://foreignpolicy.com/2018/09/12/food-fight-illegal-fishing-conflict>, Date Accessed 9-26-2018 // JM

Humans have always depended on the sea. For as long as there have been fishermen, there have been conflicts over fish. And though it may seem anachronistic, the odds that a squabble over fishing rights could turn into a major armed conflict are rising. The return of great-power competition has actually increased the likelihood of a war over fish. The past 17 years of the fight against terrorism, and Washington’s renewed focus on developing high-end capabilities to prepare for great-power conflict, have led to a lack of preparation for a low-end, seemingly mundane but increasingly likely source of conflict in the world: food. As incomes rise around the world, so too does the demand for food—especially protein. The United Nations currently estimates that between mid-2017 and 2050, the number of humans on Earth will rise by 29 percent, from 7.6 billion to 9.8 billion. Most of that population growth will occur in Asia, Africa, and Latin America—areas where millions of people have recently risen from deep poverty to the middle class. Part of a middle-class lifestyle is a middle-class diet, which includes far more protein than poor people consume. As a result of that shift, the global demand for protein will outpace population growth, increasing between 32 and 78 percent, according to some estimates. Meeting that demand could require an additional 62 to 159 million metric tons of protein per year. To maintain political support at home, leaders must ensure access to the high-quality food that is part of a middle-class lifestyle. The supply of both wild and farmed fish will not keep up. The current annual global catch of seafood is 94 million metric tons. And all around the world, the wild populations of both migratory fish, such as tuna, and less mobile species, such as flounder, are being overfished. Scarcity has already forced Chinese fishing fleets further and further afield in search of their catch. Serious international efforts to manage the world’s wild fisheries are underway, but this work is stymied by widespread illegal, unreported, and unregulated (or IUU) fishing. Today, such harvests comprise somewhere from 20 to 50 percent of the global catch and inflict economic, social, and environmental damage on some of the world’s most vulnerable populations as fisheries collapse from overfishing and poor and rural fishing communities wrestle with the subsequent loss of income and, eventually, their social fabric. The classic example of this is fishermen in Central America turning to drug cartels for employment or poaching from closed fisheries, feeding the cycle of violence and environmental damage. The political leaders of rising powers will feel enormous pressure to secure the resources their citizens demand—even if it means violating international norms and rules. This pressure could sow the seeds of potential conflict in two distinct ways. The first is that some states will overplay their hand when using fishing fleets and fisheries enforcement to exert influence in contested waters. The second is that illegal fishing, driven by exploding domestic demand and collapsing supply, will be met with increasingly aggressive enforcement by America or its allies—which could quickly escalate and spill over into actual conflict. The 1982 United Nations Convention on the Law of the Sea, commonly referred to as UNCLOS, is the foundational document for all maritime territorial claims; more than 150 countries, but not the United States, have already ratified the treaty. According to UNCLOS, a state can exclusively claim any resource, including fish, within 200 nautical miles of the base lines of the habitable landmasses it controls. Such areas are called exclusive economic zones (EEZs). Each state is responsible for managing its own fisheries within its EEZ. But beyond these exclusive zones, regulation of fishing and activity on the high seas is managed by more than 20 international and regional bodies, with widely varied mandates and resources. Enforcement is carried out by a patchwork of agencies and coalitions around the world, ad hoc partnerships, and bilateral agreements among nations. If that arrangement sounds ripe for dispute, it is.

Griffin Carpenter, 10-9-2018, Nordic Council Of Ministers, “Crunch time to end overfishing in the EU," No Publication, https://euobserver.com/opinion/143050, Date Accessed 10-9-2018 // JM

Just because the most demanding issues that we face – be that curbing climate change, achieving literacy for all, or ending poverty – have long-term goals, that doesn't lessen their urgency. Policy deadlines are intended to spur action, not delay it. By signalling the direction of travel, these deadlines are a critical element to managing a 'just transition' towards a sustainable society. But that signal goes unnoticed if the policy deadline is not really believed. And what happens when a difficult deadline hits? This is precisely what is being played out in EU fisheries as we approach the landmark legal commitment under the Common Fisheries Policy (CFP) to [were supposed to] end overfishing by 2020. Transport back in time to 2009. Looking ahead to the reform of the CFP, the European Commission reflected on the state of EU fisheries in its green paper. The assessment was bleak: "European fish stocks have been overfished for decades and the fishing fleets remain too large for the available resources." Seizing this urgent opportunity for change, a broad coalition formed to push for ambitious policy. They argued that while overfished stocks would take time to return to historical levels, we could stop overfishing immediately by setting appropriate catch limits and fishing less. The economic case was clear. Because fish stocks have been depleted through decades of overfishing, taking a conservationist approach would increase the size of fish stocks and – perhaps counterintuitively – mean greater catches within a decade. While NGOs were pushing for a deadline to end overfishing by 2015, the large fishing industry groups wanted a later date. In the end the 2013 reform of the CFP had a requirement to end overfishing for all commercial fish stocks "by 2015 where possible and, on a progressive, incremental basis at the latest by 2020". Pyrrhic victories We are now approaching the end of 2018, but 'possible' apparently wasn't possible. According to the most recent assessment, 40 percent of fish populations in North Atlantic, North Sea and Baltic are still being overfished. In the Mediterranean and Black Sea that figure is closer to 90 percent. This is not to deny the CFP deadline was going to be hard work, but that was the entire point: transitions, particularly fairly managed ones, often are. If policy isn't challenging, it means it's just 'business as usual', which is some instances – like overfishing a common resource to the detriment of future generations and the ecosystem – is unacceptable. Clearly, what makes the politics of this difficult is that it's fishers themselves who bear the brunt of the challenge. Fishing is one of the most challenging occupations – mentally, physically, financially – and remains the most dangerous. The medium to long-term benefits of ending overfishing massively exceed the costs, but the short-term loss of income forces the fishing lobby to fight necessary change. The current record profits in the fishing industry, while distributed unevenly, is a buffer to making reductions in fishing. Unfortunately as we approach the 2020 deadline, member states are calling for a new process of assessment of the costs of complying with it at this short notice. This may not produce cheery numbers; as anyone who has tried to get an emergency locksmith knows, the less time you have to do something, the more it costs. This is why early action is preferable (as researchers have found), and it shows us that even if the economic analysis is done correctly (ie a consideration of both the costs and the benefits over an extended time period) the decision of when to do it is political. Breaking cycle of delay, protest, postpone Putting off action for so long that it becomes ever more 'costly' to comply creates moral hazard – where excessive risks are taken in the knowledge that the costs will be borne on someone else. If the landmark 2020 deadline isn't met, why would any other policy in the Common Fisheries Policy be trusted? Or what about other EU policies? You can be sure that other industries with something at stake in EU policy-making are watching fisheries with interest. There is no hope for ambitious policy-making if there is no trust in the policy signals being sent. There is a dangerous cycle of delay, protest, and postpone that not only fails policy objectives but undermines trust in political institutions. As fish stocks in the deep sea have their fishing limits set on a two-year basis, this coming November is crunch time to see if the 2020 deadline and EU policy really means something.

#### Papp indicates that’s a problem because:

Robert Papp, 6-14-12, US Coast Guard on Accession to the 1982 Law of the Sea Convention Before the Senate Committee on Foreign Relations, https://www.foreign.senate.gov/imo/media/doc/Admiral\_Robert\_Papp\_Testimony.pdf, Date Accessed 9-26-2018 // JM

The Convention also maximizes legal certainty for United States sovereign rights over ocean resources in the largest EEZ in the world, as well as energy and mineral and other resources on our extended continental shelf. The Convention provides the mechanism to assure international recognition of additional United States sovereign rights on an extended continental shelf. Moreover, due to overfished and depleted fish populations, effective management of migratory fish stocks and fisheries will continue to be a contentious issue for the foreseeable future. The Convention is widely accepted as the legal framework under which all international fisheries are regulated and enforced. The Convention imposes responsibilities on the coastal states to manage their fishery resources responsibly and provides a process for resolving conflicts between competing users. The Coast Guard defends United States sovereign rights by protecting our precious ocean resources from poaching, unlawful incursion, and illegal exploitation. Joining the Convention places these sovereign rights on a firmer legal foundation, bolstering the Coast Guard’s continued ability to ensure our Nation’s sovereign rights are respected. In particular, becoming a party to the Convention will give the Coast Guard greater leverage in our efforts to eliminate illegal, unreported, and unregulated fishing. American fishermen are currently abiding by standards contemplated by the Convention and further detailed in the related UN Fish Stocks Agreement. They are adversely affected by foreign fishermen who illegally harvest highly migratory fish stocks. In another anomalous situation, the United States is a party to the UN Fish Stocks Agreement, which is directly related to the legal regime of the Law of the Sea Convention, even though we have not joined the underlying Convention. As a party to the Convention, we would be in a stronger position to persuade other nations to abide by the UN Fish Stocks Agreement and other modern international standards of fisheries management and thus advance our Nation’s interests in this field.