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Saving the Ocean's Wildlife and Fisheries by Closing off the High Seas to Industrial Commercial Fishing for Five Years

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Abstract:

Decades of industrial fishing have pushed many fish populations to the brink of collapse. Destructive trawling scrapes the seafloor, capturing target fish and devastating vital habitats. Shark finning is destroying the food chain. Garbage is killing the wildlife. The problems are well known and there is lots of scientific data. This paper explores a politically viable, realistic solution to help the fisheries recover, clean the oceans, and bring law to the High Seas. We propose a five-year moratorium on industrial commercial fishing in international waters, also known as the high seas. A five-year moratorium will contribute to the recovery of some depleted fish stocks, protection of vulnerable marine species from bycatch, and restoration of critical seafloor habitats. Finally, we emphasize the importance of international cooperation in cleaning the oceans. It will foster global cooperation and work on conserving biodiversity in areas beyond national jurisdiction (ABNJ). This is an international security issue. If we allow the global fisheries to collapse and the wildlife to be killed off, over three billion people will be without protein. These populations will become environmental refugees. They will want to migrate. The collapse of global fisheries will result in political and social unrest and eventually armed conflicts. Cleaning the oceans and helping the fisheries recover will avert a dystopian disaster. The oceans encompass over 70% of the planet's surface and play a critical role in regulating climate by absorbing carbon dioxide and releasing oxygen. It supports a dazzling diversity of marine life, forming the foundation of beautiful and complex marine ecosystems. The five-year moratorium will do wonders for repairing the damage humans have done to the oceans.

Keywords: High Seas, Overfishing, Marine Biodiversity, Fisheries Management, Moratorium, Migration, Environmental Refugees

Introduction:

A Brief History of Industrial Commercial Fishing

Fish have fed humanity since time began. When our populations were small, the oceans seemed endless. The fisheries seemed as if they could feed humanity forever. As the human population exploded in the last 300 years, all other species, including the once seemingly endless fisheries, decreased. Technology has changed and methods for large-scale capture, what we now call industrial commercial fishing, are emptying the oceans.

Early Days: Selling the Catch

As populations grew, so did the demand for fish beyond what could be consumed by individual fishermen and their families. The earliest commercial ventures likely involved selling surplus catches to those living inland.¹

By the Middle Ages, Europe witnessed the rise of large-scale herring fisheries in the North Sea. The Vikings, for example, were known for drying and salting cod, allowing them to preserve their catches for long voyages and trade with southern Europe. Whaling also emerged in the 17th century, with massive fleets hunting whales in the Atlantic and Pacific for oil and blubber.²

The Industrial Revolution Takes to Sea

The 19th century saw a revolution in commercial fishing with the arrival of steamships. These powerful vessels allowed fishers to venture further offshore and stay out longer, significantly increasing their catches. New technologies like steam trawls, which dragged heavy nets along the seabed, further boosted efficiency.³

The 20th century witnessed another leap forward. Using the new technology created by war, radar, and sonar technology helped locate fish schools with unprecedented accuracy. Factory ships emerged, equipped to process and freeze catches at sea, eliminating the need for frequent port calls. This era also saw the rise of distant-water fleets (DWFs) – large, heavily tax-subsidized fleets from developed nations fishing in international waters, often with limited oversight.⁴

The Age of Abundance and Anxieties

The post-World War II period ushered in an era of seemingly limitless bounty. Industrial fishing fleets grew larger and more sophisticated, yielding record catches. However, this period also sowed the seeds of future problems.

By the latter half of the 20th century, scientists like Dr. Daniel Pauly began to raise concerns about overfishing and the potential depletion of fish stocks. The focus on short-term profits often overshadowed the need for sustainable practices.

The Future of Our Oceans

Today, the developing world continues to depend on the oceans for protein. Consumers in rich nations consume industrial commercial fish as a food choice. People in rich cities far from the oceans do not need to eat seafood from halfway across the world. There are local sources of protein that will feed people without having to destroy the wildlife.⁵ Overfishing, habitat destruction, and climate change all threaten the long-term sustainability of our oceans. The scientific data is overwhelming. The ocean's wildlife and fisheries are in trouble.⁶

The world's oceans face a multitude of threats, with overfishing ranking as one of the most pressing concerns. Several studies estimate that up to 86% of the world's ocean fish stocks are considered overfished or fully fished, meaning they are being harvested at unsustainable rates⁷.

This relentless exploitation not only depletes commercially valuable fish populations but also disrupts the intricate web of marine life, jeopardizing the long-term health of the oceans. Industrial fishing practices often rely on destructive gear like bottom trawls, which scrape along the seafloor like giant bulldozers, indiscriminately capturing everything in their path. These practices not only damage target fish populations but also harm countless other creatures, including deep-sea corals, sponges, and other slow-growing organisms that cannot withstand the devastation. The unintended capture and killing of non-target species, known as bycatch, represents a significant additional threat to vulnerable marine mammals, seabirds, and sea turtles. All these problems resulted from the massive changes in technology and increases in industrial fishing since World War II when many nations rebuilt and expanded their fishing fleets.⁸ To work on sustainable fishing, nations are creating Marine Protected Areas.

MARINE PROTECTED AREAS ARE NOT ENOUGH

The [International Union for Conservation of Nature](#) (IUCN) defines a [protected area](#) as: A clearly defined geographical space, recognized, dedicated, and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated [ecosystem services](#) and cultural values.

This definition is intended to make it more difficult to claim MPA status for regions where exploitation of marine resources occurs. If there is no defined long-term goal for conservation and ecological recovery and extraction of marine resources occurs, a region is not a marine protected area.

"Marine protected area (MPA)" is a term for protected areas that include [marine environment](#) and [biodiversity](#).

Other definitions by the IUCN include (2010): Any area of the intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all the enclosed environments.

United States Executive Order 13158 in May 2000 established MPAs, defining them as: "Any area of the marine environment that has been reserved by federal, state, tribal, territorial, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein."

The [Convention on Biological Diversity](#) defined the broader term of *marine and coastal protected area* (MCPA): "Any defined area within or adjacent to the marine environment, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by legislation or other effective means, including custom, with the effect that its marine and/or coastal biodiversity enjoys a higher level of protection than its surroundings."⁹

While the idea of marine protected areas does help, this piecemeal approach is not working. We have a patchwork of marine protected areas throughout the planet. Yet despite these small measures, the fisheries and marine life continue their slide toward extinction.¹⁰ So what can avert what will certainly be a disaster of biblical scale?

CLOSE THE OCEANS TO INDUSTRIAL COMMERCIAL FISHING FOR FIVE YEARS

A five-year moratorium on industrial commercial fishing in international waters will help depleted fisheries to start to recover. Nature can be resilient if left alone. Marine Protected Areas have many benefits and are a proven success. Today, less than one percent of the High Seas are protected.¹¹ What a moratorium on industrial commercial fishing on the High Seas will immediately accomplish is enable governments to work together to implement the 30 x 2030 initiative to protect the oceans.

The 30 x 2030 INITIATIVE TO PROTECT THE OCEANS

One of the leading forces to protect the oceans in this century is Pew Charitable Trusts. As they observe on their website:

“In June 2023, with extensive support from Pew, the United Nations adopted a new treaty establishing a legal framework to create a network of high seas marine protected areas—the equivalent of international parks at sea—and put in place standards, guidelines and a consistent process for assessing the environmental impacts of new high seas activities.”¹²

What Pew and other organizations propose is to protect 30 percent of the oceans by 2030. Governments are finally acknowledging the incredible damage and dangers of a collapse of global fisheries. But instead of moving forward on immediately saving the fisheries, the can has been kicked down the road to 2030. Will enough nations work to put this important legal change in place? Given the long history of failed environmental initiatives, time will tell.

The year 2030 is six years away. This is not a long time. To help the 2030 initiative succeed, we need to close off the High Seas to industrial commercial fishing for five years beginning in 2026. This will allow a five-year window for fish stocks and marine life to partially recover.

Some very important species are critically endangered. Bluefin tuna fish stocks are in dangerous decline. Several studies have shown that bluefin tuna reach maturity at the age of 4-5 years in the East Atlantic and in the Mediterranean, whereas the West Atlantic population specimens reach sexual maturity at approximately 8 years. The difference in the age at which the eastern and western populations reach maturity in the North Atlantic may support the hypothesis of differentiated populations.

Like most fish, egg production seems to depend on age (or size). Therefore, a 5-year-old female can produce an average of five million eggs (measuring ~1 mm) per year, whereas females aged 15-20 years can carry up to 45 million eggs. Hatching occurs without parental care after an incubation period of 2 days.

[Bluefin tuna larvae](#) (3-4 mm) are generally pelagic and can be found in superficial waters throughout the Mediterranean Sea. There are greater concentrations in areas where there are whirlpools and fronts, especially at the end of summer. Larvae grow 1 mm per day until they reach a weight of 40-80 kg, and they separate into schools according to size.¹³

Some species take a long time to reproduce. Orange Roughy does not reach sexual maturity until at least age 20.¹⁴ These incredible fish live over 200 years.¹⁵ It is outrageous to kill animals that live over 200 years. Trying to allow these amazing creatures to reproduce is important for biodiversity. Some shark species live over 400 years.¹⁶ Redwoods live over 1,000 years.

Humans continue to kill plants and animals that have much longer lifespans. Without a common value system for our species, killing plants and animals is an unfortunate human behavior. By working together to save the ocean's marine life and fisheries, we can foster cooperation and create a common moral code.

CLEANING THE OCEANS REQUIRES INTERNATIONAL COOPERATION

While this moratorium is in place, a global effort to clean up the planet will foster international cooperation. The amount of garbage being dumped into the oceans is a global environmental disaster.¹⁷ Stopping the destruction of endangered species by removing the garbage will have a positive impact on the ecosystem and international relations.¹⁸ This is a policy decision requiring careful politics and leadership. If it can't be accomplished from the top down with political leadership, we can do wonders from the ground up. Numerous individuals and organizations are working on cleaning the oceans, beaches, rivers, forests... our planet. Cleaning up the planet is everyone's responsibility. Working together and helping each other to clean up the global garbage problem will foster much-needed cooperation. In a very divided world with ongoing conflicts, stopping the fighting and cleaning up the mess we all have made might just help all of us to survive.

The United States and the Soviet Union worked together during World War II to defeat fascism. We can do it again. Russia, China, and Iran are not "enemies" of the United States. While political leadership is presently lacking to solve important global problems, change is possible. The push to save life on Earth will come from the grassroots up. Politicians don't lead. Being the cowards that they are, they follow. Numerous organizations and individuals are working to clean up the garbage that is being dumped into the oceans. Among some of the most notable are ¹⁹:

The Ocean Cleanup: This Dutch non-profit organization focuses on developing advanced technologies to remove plastic debris from rivers and oceans. They've deployed Interceptor systems in rivers and ocean cleanup systems in the Great Pacific Garbage

Patch: <https://theoceancleanup.com/>

Ocean Conservancy: This global organization is known for its International Coastal Cleanup, the world's largest volunteer effort for cleaning beaches and waterways. They also work on policy advocacy and research related to ocean trash:

<https://oceanconservancy.org/>

Parley for the Oceans: This environmental organization collaborates with brands, artists, and athletes to raise awareness and funds for ocean conservation efforts, with a focus on tackling plastic pollution: <https://parley.tv/>

Other Initiatives:

Break Free from Plastic: This global movement unites individuals and organizations around the world to fight plastic pollution. They work on various campaigns, including holding brands accountable for plastic packaging:

<https://www.breakfreefromplastic.org/>

5 Gyres: This non-profit organization focuses on scientific research and education related to plastic pollution, particularly the five major ocean gyres where plastic accumulates: <https://www.5gyres.org/>

Individuals:

Boyan Slat: The founder of The Ocean Cleanup, Slat is a young inventor who has dedicated himself to developing solutions for cleaning plastic from the oceans.

Alexandra Cousteau: Granddaughter of the famed ocean explorer Jacques Cousteau, Alexandra Cousteau is a passionate advocate for ocean conservation and fights against plastic pollution through her foundation:

<https://www.oceanfutures.org/exploration/expeditions>²⁰

The Many Benefits of a Five-Year High Seas Fishing Moratorium:

Fish Stock Recovery: A five-year moratorium on industrial fishing in international waters will help many fish populations to partially replenish and return to healthy stock levels. Some tasty fish like Groupers can take 3-7 years to reach sexual maturity.²¹ Allowed to reproduce, this species and others can partially recover in a short time. Some large Groupers can produce several million eggs.²²

A five-year reprieve from high-seas industrial commercial fishing will enable many species to lay millions of eggs and increase fish stocks. This includes many important species like tuna.

Bluefin tuna must be the most perfect fish in the oceans. Atlantic bluefin tuna have been recorded at up to 1,500 lbs. These super predators can swim up to 40 miles an hour making them one of the fastest fish in the oceans.²³ Before industrial commercial fishing, these and numerous other large predators lived a long time and provided protein to communities for centuries. With seafood becoming a rich country's "food choice" numerous species have been severely overfished.

Add the population explosion humanity has experienced in the last 200 years and massive improvements in technology, and we have our present dismal situation with depleted

fisheries. The following is an excellent Wikipedia article that explains what has happened to numerous fish stocks from overfishing:²⁴

Examples of overfishing exist in areas such as the [North Sea](#), the [Grand Banks of Newfoundland](#), and the [East China Sea](#). In these locations, overfishing has not only proved disastrous to fish stocks but also to the fishing communities relying on the harvest. Like other [extractive industries](#) such as forestry and hunting, fisheries are susceptible to economic interaction between ownership or stewardship and [sustainability](#), otherwise known as the [tragedy of the commons](#).

Tuna has been caught by the locals in the upper Adriatic for centuries. Increasing fishing prevented the large schools of [little tunny](#) from migrating into the [Gulf of Trieste](#). The last major tuna catch was made in 1954 by the fishermen of Santa Croce, Contovello, and [Barcola](#).

[The Peruvian coastal anchovy fisheries crashed in the 1970s](#) after overfishing and an [El Niño](#) season largely depleted the [Peruvian anchovetas](#) from its waters. Anchovies were a major natural resource in [Peru](#); indeed, 1971 alone yielded 10.2 million metric tons of anchovies. However, the following five years saw the Peruvian fleet's catch amount to only about four million tons. This was a major loss to Peru's economy.

The [collapse of the Atlantic Northwest cod fishery](#) off [Newfoundland](#), and the 1992 decision by [Canada](#) to impose an indefinite [moratorium](#) on the [Grand Banks](#), is a dramatic example of the consequences of overfishing.

The [sole](#) fisheries in the [Irish Sea](#), the west [English Channel](#), and other locations have become overfished to the point of virtual collapse, according to the UK government's official [Biodiversity Action Plan](#). The United Kingdom has created elements in this plan to attempt to restore the fishery, but [the expanding global human population](#) and the expanding demand for fish have reached a point where the demand for food threatens the stability of these fisheries if not the species' survival.

Many [deep sea fish](#) are at risk, such as [orange roughy](#) and [sablefish](#). The deep sea is almost completely dark, near freezing, and has little food. Deep sea fish grow slowly because of limited food, have slow metabolisms, and low reproductive rates, and many do not reach breeding maturity for 30 to 40 years. A fillet of orange roughy at the store is probably at least 50 years old. Most deep-sea fish are in

international waters, where there are no legal protections. Most of these fish are caught by [deep trawlers](#) near [seamounts](#), where they congregate for food. [Flash freezing](#) allows the trawlers to work for days at a time, and modern [fishfinders](#) target the fish with ease.

[Blue walleye](#) became extinct in the [Great Lakes](#) in the 1980s. Until the middle of the 20th century, the walleye was a commercially valuable fish, with about a half million tons being landed in the period from about 1880 to the late 1950s, when the populations collapsed, apparently through a combination of overfishing, [anthropogenic eutrophication](#), and [competition](#) with introduced [rainbow smelt](#).

The [Chinese paddlefish](#), once common to the [Yangtze River](#), has gone extinct due to overfishing and dam construction



The [World Wide Fund for Nature](#) and the [Zoological Society of London](#) jointly issued their "Living Blue Planet Report" on 16 September 2015 which states that there was a dramatic fall of 74% in worldwide stocks of important Scombridae fish such as [mackerel](#), [tuna](#), and [bonitos](#) between 1970 and 2010, and the global overall "population sizes of mammals, birds, reptiles, amphibians and fish fell by half on average in just 40 years."

Limited supply due to past overfishing of the [Pacific bluefin tuna](#) has contributed to occasional astronomical prices. In January 2019, a 278-kilogram (612 pounds) tuna sold for 333.6 million yen, or over US\$3 million, US\$4,900 per pound.

[Sharks](#) and [rays](#): The global abundance of oceanic sharks and rays has declined by 71% since 1970, owing to an 18-fold increase in relative fishing pressure. As a consequence, three-quarters of the species comprising this group are now threatened with extinction.^[29] A stark example, caught almost entirely on video, was an incident in Hurghada, Egypt on 8 June 2023, in which Russian [Vladimir Popov](#) was killed by a tiger shark in an attack that has been attributed to overfishing of the Red Sea.

A study in 2003 found that, as compared with 1950 levels, only a remnant (in some instances, as little as 10%) of all large ocean fish stocks are left in the seas. These large ocean fish are the species at the top of the food chains (e.g., [tuna](#), and [cod](#), among others). This article was subsequently criticized as being fundamentally flawed, although much debate still exists and the majority of fisheries scientists now consider the results irrelevant concerning large [pelagics](#) (the open seas).

In the United States, approximately 27% of exploited fish stocks are considered overfished.

In [Tasmania](#), over 50% of major fisheries species, such as the eastern gemfish, the southern rock lobster, southern bluefin tuna, jack mackerel, or trumpeter, have declined over the past 75 years due to overfishing.

The problem of declining fish stocks is new to history. Before industrial commercial fishing, and much smaller human populations, nature and humans were in balance. After World War II, there was a population explosion and an increase in industrial commercial fishing vessels. With the improvement in technology and marketing of seafood as a food choice, now we have an ongoing environmental disaster. More boats are chasing fewer fish. The Chinese have the largest fishing fleet with over 17,000 trawlers.²⁵

While the Chinese government denies it, the evidence shows otherwise. China is emptying the oceans. As Ian Urbani observes:

“Estimates of the total size of China’s global fishing fleet vary widely. By some calculations, China has anywhere from 200,000 to 800,000 fishing boats, accounting for nearly half of the world’s fishing activity. The Chinese government says its distant-water fishing fleet, or those vessels that travel far from China’s coast, numbers roughly 2,600, but other research, such as this study by the Overseas Development Institute (ODI), puts this number closer to 17,000, with many of these ships being invisible like those that satellite data discovered in North Korean waters. By comparison, the United States distant water fishing fleet has fewer than 300 vessels.”²⁶

IF THE FISHERIES COLLAPSE- THREE BILLION PEOPLE WILL MIGRATE

The environmental problems of climate change, the plastics Armageddon, and the collapse of the fisheries are all coming together at once. It is a perfect storm of social and environmental problems. Add a war of choice in the Ukraine, and the escalating

violence in the Middle East, and humanity is in major trouble. This is why protecting global fisheries is a global security risk for the entire planet. Despite the success of some developing countries, the reality of life is we cannot absorb five billion poor people who want to migrate to escape poverty.

According to the World Bank, “While extreme poverty has decreased, a broader definition of poverty acknowledges that many more people struggle to meet their basic needs. The World Bank also uses poverty lines of \$3.20 and \$5.50 per day to represent different levels of poverty. Using these broader definitions, the number of people struggling financially could be closer to 5 billion.”²⁷

The World Wildlife Fund and several other organizations have observed: “As the largest traded food commodity in the world, seafood provides sustenance to billions of people worldwide. More than 3 billion people in the world rely on wild-caught and farmed seafood as a significant source of animal protein.” ***

“Historically, the seafood industry has significantly impacted the environment. **The United Nations Food and Agricultural Organization estimates that 85% of marine fish stocks are either fully exploited or overfished. (Emphasis mine).** Similarly, many fisheries throughout the world throw away more fish than they keep. This incidental catch of non-target species—known as bycatch—is harmful to many species. Pollution from poorly managed and unsustainable seafood farms, also known as aquaculture, has caused the deterioration of coastal habitats, lakes, and rivers.”²⁸

Migration happens primarily for three reasons: economics, education, and entertainment. When homelands are ravaged by drought, war, and lack of economic opportunity, people are going to do what they have done for centuries- they will migrate. On a planet with over eight billion people and ongoing wars in the Middle East, Ukraine, and Sudan, people are going to be displaced. Before these conflicts, the UN estimated there were approximately 281 million migrants.²⁹ This report falls short now that there are ongoing conflicts in Ukraine, the Middle East, and Sudan. Add the destruction of the fisheries, and climate change and humanity is staring at a dystopian future.

When the fisheries collapse and food security dwindles, coastal communities dependent on fishing for their livelihoods will face certain economic devastation. With their traditional way of life destroyed, hundreds of millions will be forced to migrate in search of work and sustenance. While the United States, Canada, and the European Union are well-developed, functioning economies with a need for labor, as stated earlier, we cannot absorb five billion poor people.

Global destruction of fisheries and marine life is a global security issue that must be addressed by the United Nations Security Council. If we allow the fisheries to be destroyed,

all of us are in danger. Working together, we can solve many of these problems in a short time.

The concern about overfishing is a multi-disciplinary problem requiring several conservation and environmental issues to be addressed at once. The damage to global fisheries and marine life has many causes, not just “overfishing”. A five-year reprieve by closing off the High Seas will give nations time to work together to address several major problems at once. These include garbage dumped into the oceans, cleaning river deltas, stopping shark finning, reducing our use of fossil fuels, ending subsidies for industrial commercial fishing, creating regulations for the fisheries, and other initiatives. Much of this can be accomplished by holding an international conference on this five-year ban and how to implement it.

IMPROVING THE FISH STOCKS WILL INCREASE THE NUMBERS OF THE LARGE MISSING PREDATORS

A five-year moratorium on industrial commercial fishing on the High Seas will also help increase the large predators now missing from the oceans. When prey increases, predators increase as well. The once plentiful oceans no longer have large predators. A 2003 study published in the journal *Nature* reported that commercial fishing has emptied the oceans of more than 90% of large predatory fish like tuna, swordfish, and marlin.³⁰

Large predatory fish, like tuna, swordfish, and marlin, depend on smaller fish for food. When fishery stocks of these smaller fish recover and become more abundant, they provide a more plentiful food source for the large predators. Overfishing can lead to competition for food among large predators. When fish stocks improve, this competition eases, allowing populations of large predators to grow. With a reliable food source, large predators can have more successful breeding seasons.

Reduced Bycatch Mortality: Industrial fishing practices often result in significant bycatch. These creatures play vital roles in the marine ecosystem, feeding on other animals and maintaining healthy populations. Sea turtles, for example, help to maintain healthy seagrass beds, which are vital nursery grounds for a variety of fish species. A 2022 report by the Food and Agriculture Organization of the United Nations (FAO) estimated that global bycatch discards amount to a staggering 30% of the total global fish catch.³¹ By significantly reducing fishing activity on the high seas, a moratorium will dramatically decrease bycatch mortality, thus giving vulnerable species a chance to rebound and contribute to a healthy ocean ecosystem.

Habitat Restoration: Destructive fishing practices like bottom trawling not only deplete fish stocks and kill bycatch but also devastate critical seafloor habitats. These complex ecosystems, including coral reefs, seamounts, and hydrothermal vents, provide shelter and

breeding grounds for countless marine creatures and play a crucial role in ocean health. Bottom trawling disrupts these habitats, damaging fragile structures and stirring up clouds of sediment that can smother corals and other organisms.

A Call to Action: A dystopian future is not inevitable. A five-year moratorium on High Seas Industrial commercial fishing, sustainable fishing practices, stricter regulations, and the creation of marine protected areas will replenish fish stocks. Supporting alternative protein sources like aquaculture and plant-based options can also help ease the pressure on wild fish populations.

By acting now with a sense of urgency and international cooperation, we can safeguard this vital resource and prevent a future marred by food insecurity, mass migration, and political instability. Let's choose a course of action that ensures the health of our oceans and the well-being of generations to come.

Piecemeal efforts and goals of 30 percent of the oceans by 2030 will not work unless immediate action is taken this year. Protecting the oceans and preventing a dystopian future must become a major political issue in this 2024 United States presidential election. We must act now. The danger to our children and grandchildren as well as the plant and animal life required at least a five-year moratorium on industrial commercial fishing.

The United Nations Security Council Should Host an International Conference on Closing off the High Seas to Industrial Commercial Fishing for Five-Years.

The United Nations was created to address global problems. Had the five permanent members of the Security Council abided by the UN Charter, humanity would be much farther along with peace and prosperity as well as a clean healthy ecosystem. Greed and the lust for power have damaged us all. It is not set in stone with a command from heaven that humans will destroy the planet. There are numerous instances of foes working together. The most classic example is the United States' relationship with Japan and Germany. These two once very hostile nations are now major trading partners and at peace with the world.

There is no reason for any hostility. The world is so interconnected that every major city on our small planet is 22 hours or less from other major metropolitan megapolises. Despite the cynicism of critics, we have international law. This is what enables over 100,000 flights each day, conversations with friends and relatives in other countries, and world trade. The idea that war is inevitable, and our environmental problems are beyond hope is just nonsense. Violence is the exception. Peace is what is normal.

Instead of shouting at each other, it is time to put aside our ancient hatreds. Talking with one another instead of demeaning cultures we know little about will yield results. In the United

States, it is common for American politicians to demonize “China”. It is also ridiculous. This ancient society has bridges and buildings older than the United States. America’s foreign policy has been a reckless disaster since World War II. Despite the propaganda, China is working hard to solve major environmental problems. The Chinese Supreme People’s Court asked Western attorneys to help set up environmental systems to litigate against polluters.³² We can move past ignorance and hatred and work together. There are solutions to global problems. Since leadership is lacking from the Security Council member states, it will come from the ground up.

The United States should invite the permanent members of the Security Council to host an international conference in Hawaii to discuss implementing a five-year moratorium on industrial commercial fishing on the high seas. President Barrack Obama can be requested as the moderator. The University of Hawaii can utilize its Marine Option Program interns to provide logistics. Hawaii has the convention space, world-class marine science programs, and sufficient lodging accommodations.

Tragedy of the Commons and Climate Change

The ongoing problem of the tragedy of the commons and climate change must be part of any discussion on saving the ocean's wildlife. Proper regulation of fishing like what is successful in Alaska will help solve the tragedy of the commons. One reason the fisheries are in decline worldwide is the high seas are lawless. There is the race to catch the last bluefin tuna, the last marlin, sailfish, and swordfish. Bringing law to the high seas will do wonders in helping the fisheries recover. The tragedy of the commons can be partially solved by requiring licenses issued by the United Nations Food and Agriculture Organization.³³ Bids from the industrial fishing companies for licenses will give value to the depleted fishing stocks.

We Must Continue to Address Climate Change

If the oceans continue to warm and become more acidic, the sound bites of politicians, papers from academia, and noise from environmental groups claiming concern about “the oceans” will be wasted words. Hotter oceans will result in the fish dying.

To slow the warming of the planet by exiting our reliance on fossil fuels, we need to seriously consider converting the entire global energy economy to renewable energy and some nuclear power. Technology is not something to be feared but understood. Nuclear power is a great source of energy for peace. In every industry, as technologies developed there were industrial accidents. This is true of the airline industry, automobiles, and nuclear power stations. The reality of life is humans cannot continue to dump 100 million barrels of

oil into the atmosphere every day. We will heat the planet to a point where the oceans become so hot that the fish will die regardless of any moratorium or regulation.

Invitees: the following organizations should be invited: Major fishing nations; the global commercial fishing companies, global environmental organizations, the Secretary General of the United Nations, leaders of indigenous communities, major research universities, the World Trade Organization, and the global public via the internet.

Agenda: Implementing a five-year moratorium on industrial commercial fishing on the High Seas.

Enforcement of this moratorium using the global navies of major nations.

Cleaning up the oceans, rivers, and deltas and developing proper waste management systems in the developing world. The developed rich nations as part of their foreign aid need to fund waste management systems, river and delta cleanups as well as removing garbage from the oceans.

CONCLUSION

The time for half measures is over. Too much is at stake to wait and see if the 30 by 2030 initiative will be implemented. Five years is a very short time. But it is long enough for many species of fish which lay millions of eggs to reproduce. Other creatures like sharks are slow to reproduce. A five-year reprieve will help ALL the ocean's wildlife. Small necessary fish like herring and anchovies will partially recover. As the number of smaller fish increases, the larger predators have more food, and their stocks increase.

When we are young, five years seems like an eternity as it is a much bigger portion of one's life. For those of us in our 60s and beyond, we are aware of just how fast five years can pass by.

What will the 17,000 Chinese fishermen and other fishermen do for five years while the High Seas are closed off to industrial commercial fishing? Many of these fishing vessels can be converted into tourist boats. The only reason there are so many commercial fishing vessels out on the high seas is they are subsidized by their governments. If these companies and other Western companies had to bring fish to shore without government subsidies, according to Dr. Daniel Pauly, the world's foremost authority on fisheries, they would not make a profit.³⁴

A fund needs to be created like what the United States did with the agricultural sector when farmers were planting too many crops. Our government paid them to not farm. This can be created through the United Nations. Since the United States and the European Union import

over 80 percent of their seafood, they need to take the lead in funding this transition from overfishing to sustainability.³⁵

Closing off just the High Seas will also give nations time to clean up the massive garbage that has been dumped into the oceans. This is labor-intensive work that can create employment in numerous communities. Rich countries can help by providing capital and technology as part of their foreign aid. The money is there to build waste management systems in the developing world. Presently, the developed countries contribute approximately \$231 billion in aid to the developing world.³⁶ While this may seem like a large sum of money, Americans spend approximately \$143 billion annually on their pets,³⁷ and the world spends over \$2.24 trillion on war.³⁸

The developed world has caused various environmental problems of over-fishing, massive production of garbage, climate change, and wars of choice as well as a whole host of other difficulties. We are all responsible for this plastic Armageddon. We all must work together to clean up our small planet. A five-year moratorium on industrial commercial fishing on the High Seas will build global cooperation, help many species of fish to recover, clean the oceans, and increase over time the number of large predators. Five years is not a long time. We must act now as time is just not on our side. Our children and grandchildren's future as well as the complex life on our small planet is at stake.

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