

The Global Oceans Regime

Issue Brief

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Overview

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- [Scope of the Challenge](#)
 - [Oceans Governance: Strengths and Weaknesses](#)
 - [U.S. Ocean Governance Issues](#)
 - [Recent Developments](#)
 - [Options for Strengthening Global Ocean Governance](#)

Scope of the Challenge

Oceans are the source of life on earth. They shape the climate, feed the world, and cleanse the air we breathe. They are vital to our economic well being, ferrying roughly **90 percent** of global commerce, housing submarine cables, and providing one-third of traditional hydrocarbon resources (as well as new forms of energy such as wave, wind, and tidal power). But the oceans are increasingly threatened by a dizzying array of dangers, from piracy to climate change. To be good stewards of the oceans, nations around the world need to embrace more effective multilateral governance in the economic, security, and environmental realms.



The world's seas have always been farmed from top to bottom. New technologies, however, are making old practices unsustainable. When commercial trawlers scrape the sea floor, they bulldoze entire ecosystems. Commercial ships keep to the surface but produce carbon-based emissions. And recent developments like offshore drilling and deep seabed

mining are helping humans extract resources from unprecedented depths, albeit with questionable

environmental impact. And as new transit routes open in the melting Arctic, this once-forgotten pole is emerging as a promising frontier for entrepreneurial businesses and governments.

But oceans are more than just sources of profit—they also serve as settings for transnational crime. Piracy, drug smuggling, and illegal immigration all occur in waters around the world. Even the most sophisticated ports struggle to screen cargo, containers, and crews without creating regulatory friction or choking legitimate commerce. In recent history, the United States has policed the global commons, but growing Indian and Chinese [blue-water navies](#) raise new questions about how an established security guarantor should accommodate rising—and increasingly assertive—naval powers.

And the oceans themselves are in danger of environmental catastrophe. They have become the world's garbage dump—if you travel to the heart of the Pacific Ocean, you'll find the North Pacific Gyre, where particles of plastic [outweigh](#) plankton six to one. [Eighty percent](#) of the world's fish stocks are depleted or on the verge of extinction, and when carbon dioxide is released into the atmosphere, much of it is absorbed by the world's oceans. The water, in response, warms and acidifies, destroying habitats like wetlands and coral reefs. Glacial melting in the polar regions raises global sea levels, which threatens not only marine ecosystems but also humans who live on or near a coast. Meanwhile, port-based megacities dump pollution in the ocean, exacerbating the degradation of the marine environment and the effects of climate change.

Threats to the ocean are inherently transnational, touching the shores of every part of the world. So far, the most comprehensive attempt to govern international waters produced the [United Nations Convention on the Law of the Sea](#) (UNCLOS). But U.S. refusal to join the convention, despite widespread bipartisan support, continues to limit its strength, creating a leadership vacuum in the maritime regime. Other states that have joined the treaty often ignore its guidelines or fail to coordinate policies across sovereign jurisdictions. Even if it were perfectly implemented, UNCLOS is now thirty years old and increasingly outdated.

Important initiatives—such as local fishery arrangements and the [United Nations Environment Program Regional Seas Program](#)—form a disjointed landscape that lacks legally-binding instruments to legitimize or enforce their work. The recent [UN Conference on Sustainable Development](#) ("Rio+20") in Rio de Janeiro, Brazil, convened over one hundred heads of state to assess progress and outline goals for a more sustainable "blue-green economy." However, the opportunity to set actionable targets to improve oceans security and biodiversity produced few concrete outcomes. As threats to the oceans become more pressing, nations around the world need to rally to create and implement an updated form of oceans governance.

Oceans Governance: Strengths and Weaknesses

Overall assessment: A fragmented system

In 1982, the [United Nations Convention on the Law of the Sea](#) (UNCLOS) established the fundamental legal principles for ocean governance. This convention, arguably the largest and most complex treaty ever negotiated, entered into force in 1994. Enshrined as a widely accepted corpus of international common law, UNCLOS clearly enumerates the rights, responsibilities, and jurisdictions of states in their use and management of the world's oceans. The treaty defines "exclusive economic zones" (EEZs), which is the coastal water and seabed—extending two hundred nautical miles from shore—over which a state has special rights over the use of marine resources; establishes the limits of a country's "territorial sea," or the sovereign territory of a state that extends twelve nautical miles from shore; and clarifies rules for transit through "international straits." It also addresses—with varying degrees of effectiveness—resource division, maritime traffic, and pollution regulation, as well as serves as the principal forum for dispute resolution on ocean-related issues. To date, [162 countries and the European Union](#) have ratified UNCLOS.

UNCLOS is a remarkable achievement, but its resulting oceans governance regime suffers several serious limitations. First, the world's leading naval power, the United States, is not party to the convention, which presents obvious challenges to its effectiveness—as well as undermines U.S. sovereignty, national interests, and ability to exercise leadership over resource management and dispute resolution. Despite the myriad military, economic, and political benefits offered by UNCLOS, a small but vocal minority in the United States continues to block congressional ratification.

Second, UNCLOS is now thirty years old and, as a result, does not adequately address a number of emerging and increasingly important international issues, such as fishing on the high seas—a classic case of the tragedy of the commons—widespread maritime pollution, and transnational crime committed at sea.

Third, both UNCLOS and subsequent multilateral measures have weak surveillance, capacity-building, and enforcement mechanisms. Although various UN bodies support the instruments created by UNCLOS, they have no direct role in their implementation. Individual states are responsible for ensuring that the convention's rules are enforced, which presents obvious challenges in areas of overlapping or contested sovereignty, or effectively stateless parts of the world. The [UN General Assembly](#) plays a role in advancing the oceans agenda at the international level, but its recommendations are weak and further constrained by its lack of enforcement capability.

Organizations that operate in conjunction with UNCLOS—such as the [International Maritime](#)

Organization (IMO), the **International Tribunal on the Law of the Sea** (ITLOS), and the **International Seabed Authority** (ISA)—play an important role to protect the oceans and strengthen oceans governance. The IMO has helped reduce ship pollution to historically low levels, although it can be slow to enact new policy on issues such as invasive species, which are dispersed around the world in ballast water. Furthermore, ITLOS only functions if member states are willing to submit their differences to its judgment, while the ISA labors in relative obscurity and operates under intense pressure from massive commercial entities.

Fourth, coastal states struggle to craft domestic policies that incorporate the many interconnected challenges faced by oceans, from transnational drug smuggling to protecting ravaged fish stocks to establishing proper regulatory measures for offshore oil and gas drilling. UNCLOS forms a solid platform on which to build additional policy architecture, but requires coastal states to first make comprehensive oceans strategy a priority—a goal that has remained elusive thus far.

Fifth, the system is horizontally fragmented and fails to harmonize domestic, regional, and international policies. Domestically, local, state, and federal maritime actors rarely coordinate their agendas and priorities. Among the handful of countries and regional organizations that have comprehensive ocean policies—including Australia, Canada, New Zealand, Japan, the European Union, and most recently the United States—few synchronize their activities with other countries. The international community, however, is attempting to organize the cluttered oceans governance landscape. The UN Environmental Programme **Regional Seas Program** works to promote interstate cooperation for marine and coastal management, albeit with varying degrees of success and formal codification. Likewise, in 2007 the European Union instituted a regional **Integrated Maritime Policy** (IMP) that addresses a range of environmental, social, and economic issues related to oceans, as well as promotes surveillance and information sharing. The IMP also works with neighboring partners to create an integrated oceans policy in places such as the Arctic, the Baltic, and the Mediterranean.

Lastly, there is no global evaluation framework to assess progress. No single institution is charged with monitoring and collecting national, regional, and global data on the full range of oceans-related issues, particularly on cross-cutting efforts. Periodic data collecting does take place in specific sectors, such as biodiversity conservation, fisheries issues, and marine pollution, but critical gaps remain. The **Global Ocean Observing System** is a promising portal for tracking marine and ocean developments, but it is significantly underfunded. Without concrete and reliable data, it is difficult to craft effective policies that address and mitigate emerging threats.

Despite efforts, oceans continue to deteriorate and a global leadership vacuum persists. Much work remains to modernize existing institutions and conventions to respond effectively to emerging threats,

as well as to coordinate national actions within and across regions. The June 2012 [United Nations Conference on Sustainable Development](#), also known as Rio+20, identified oceans (or the "blue economy") as one of the seven priority areas for sustainable development. Although experts and activists hoped for a new agreement to strengthen the sustainable management and protection of oceans and address modern maritime challenges such as conflicting sovereignty claims, international trade, and access to resources, Rio+20 produced few concrete results.

Maintaining freedom of the seas: Guaranteed by U.S. power, increasingly contested by emerging states

The United States polices every ocean throughout the world. The U.S. navy is unmatched in its ability to provide strategic stability on, under, and above the world's waters. With almost three hundred active naval ships and almost four thousand aircraft, its battle fleet tonnage is [greater](#) than the next thirteen largest navies combined. Despite recently proposed budget cuts to aircraft carriers, U.S. naval power continues to reign supreme.

The United States leverages its naval capabilities to ensure peace, stability, and freedom of access. As Great Britain ensured a Pax Britannicain the nineteenth century, the United States presides over relatively tranquil seas where global commerce is allowed to thrive. In 2007, the U.S. Navy released a [strategy report](#) that called for "cooperative relationships with more international partners" to promote "greater collective security, stability, and trust."

The United States pursues this strategy because it has not faced a credible competitor since the end of the Cold War. And, thus far, emerging powers have largely supported the U.S. armada to ensure that the oceans remain open to commerce. However, emerging powers with blue-water aspirations raise questions about how U.S. naval hegemony will accommodate new and assertive fleets in the coming decades. China, for instance, has been steadily building up its naval capabilities over the past decade as part of its [far sea defense](#) strategy. It [unveiled](#) its first aircraft carrier in 2010, and is [investing](#) heavily in submarines outfitted with ballistic missiles. At the same time, India has scaled up its military budget by [64 percent](#) since 2001, and plans to spend nearly [\\$45 billion](#) over the next twenty years on its navy.

Even tensions among rising powers could prove problematic. For example, a two-month standoff between China and the Philippines over a disputed region of the South China Sea ended with both parties committing to a [peaceful resolution](#). China, Taiwan, Vietnam, Malaysia, Brunei, and the Philippines have competing territorial and jurisdictional claims to the South China Sea, particularly over rights to exploit its potentially vast oil and gas reserves. Control over strategic shipping lanes and freedom of navigation are also increasingly contested, especially between the United States and China.

Combating illicit trafficking: Porous, patchy enforcement

In addition to being a highway for legal commerce, oceans facilitate the trafficking of drugs, weapons, and humans, which are often masked by the flow of licit goods. Individual states are responsible for guarding their own coastlines, but often lack the will or capacity to do so. Developing countries, in particular, struggle to coordinate across jurisdictions and interdict. But developed states also face border security challenges. Despite its commitment to interdiction, the United States seizes less than 20 percent of the drugs that enter the country by maritime transport.

The United Nations attempts to combat the trafficking of drugs, weapons, and humans at sea. Through the [Container Control Program](#) (PDF), the [UN Office on Drugs and Crime](#) (UNODC) assists domestic law enforcement in five developing countries to establish effective container controls to prevent maritime drug smuggling. The UNODC also oversees UN activity on human trafficking, guided by two protocols to the [UN Convention on Transnational Organized Crime](#). Although UN activity provides important groundwork for preventing illicit maritime trafficking, it lacks monitoring and enforcement mechanisms and thus has a limited impact on the flow of illegal cargo into international ports. Greater political will, state capacity, and multilateral coordination will be required to curb illicit maritime trafficking.

New ad hoc multilateral arrangements are a promising model for antitrafficking initiatives. The [International Ship and Port Facility Security Code](#), for instance, provides a uniform set of measures to enhance the security of ships and ports. The code helps member states control their ports and monitor both the people and cargo that travel through them. In addition, the U.S.-led [Proliferation Security Initiative](#) facilitates international cooperation to interdict ships on the high seas that may be carrying illicit weapons of mass destruction, ballistic missiles, and related technology. Finally, the [Container Security Initiative](#) (CSI), also spearheaded by the United States, attempts to prescreen all containers destined for U.S. ports and identify high-risk cargo (for more information, see section on commercial shipping).

One way to combat illicit trafficking is through enhanced regional arrangements, such as the [Paris Memorandum of Understanding on Port State Control](#). This agreement provides a model for an effective regional inspections regime, examining at least 25 percent of ships that enter members' ports for violations of conventions on maritime safety. Vessels that violate conventions can be detained and repeat offenders can be banned from the memorandum's area. Although the agreement does not permit searching for illegal cargo, it does show how a regional inspections regime could be effective at stemming illegal trafficking.

Securing commercial shipping: Global supply chains at risk

Global shipping is incredibly lucrative, but its sheer scope and breadth presents an array of security and safety challenges. The collective fleet consists of approximately 50,000 ships registered in more than 150 nations. With more than one million employees, this armada transports over [eight billion tons](#) (PDF) of goods per year—roughly [90 percent](#) of global trade. And the melting Arctic is opening previously impassable trade routes; in 2009, two German merchant vessels [traversed](#) the Northeast Passage successfully for the first time in recent history. But despite impressive innovations in the shipping industry, maritime accidents and attacks on ships still occur frequently, resulting in the loss of billions of dollars of cargo. Ensuring the safety and security of the global shipping fleet is essential to the stability of the world economy.

Internationally, the International Maritime Organization (IMO) provides security guidelines for ships through the [Convention on the Safety of Life at Sea](#), which governs everything from construction to the number of fire extinguishers on board. The IMO also aims to prevent maritime accidents through international standards for navigation and navigation equipment, including satellite communications and locating devices. Although compliance with these conventions has been uneven, regional initiatives such as the [Paris Memorandum of Understanding](#) have helped ensure the safety of international shipping.

In addition, numerous IMO conventions govern the safety of container shipping, including the [International Convention on Safe Containers](#), which creates uniform regulations for shipping containers, and the [International Convention on Load Lines](#), which determines the volume of containers a ship can safely hold. However, these conventions do not provide comprehensive security solutions for maritime containers, and illegal cargo could be slipped into shipping containers during transit. Since 1992, the IMO has tried to prevent attacks on commercial shipping through the [Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation](#), which provides a legal framework for interdicting, detaining, and prosecuting terrorists, pirates, and other criminals on the high seas.

In reality, most enforcement efforts since the 9/11 attacks have focused on securing ports to prevent the use of a ship to attack, rather than to prevent attacks on the ships themselves. Reflecting this imperative, the IMO, with U.S. leadership, implemented the [International Ship and Port Facility Security Code](#) (ISPS) in 2004. This code helped set international standards for ship security, requiring ships to have security plans and officers. However, as with port security, the code is not obligatory and no clear process to audit or certify ISPS compliance has been established. Overall, a comprehensive regime for overseeing the safety of international shipping has not been created.

The United States attempts to address this vulnerability through the [Container Security Initiative](#) (CSI), which aims to prescreen all containers destined for the United States, and to isolate those that

pose a high-security risk before they are in transit. The initiative, which operates in **fifty-eight foreign ports**, covers more than 86 percent of container cargo en route to the United States. Several international partners and organizations, including the European Union, the Group of Eight, and the World Customs Organization, have expressed interest in modeling security measures for containerized cargo based on the CSI model. Despite these efforts, experts **estimate** that only 2 percent of containers destined for U.S. ports are actually inspected.

Confronting piracy: Resurgent scourge, collective response

After the number of attacks reached a record high in 2011, incidences of piracy dropped **28 percent** in the first three months of 2012. Overall, the number of worldwide attacks decreased from 142 to 102 cases, primarily due to international mobilization and enhanced naval patrols off the coast of Somalia. However, attacks intensified near Nigeria and Indonesia as pirates shifted routes in response to increased policing, raising fresh concerns over the shifting and expanding threat of piracy. In addition to the human toll, piracy has significant economic ramifications. According to a report by the nonprofit organization Oceans Beyond Piracy, Somali piracy cost the global economy nearly **\$7 billion** in 2011. Sustained international coordination and cooperation is essential to preventing and prosecuting piracy.

Recognizing this imperative, countries from around the world have shown unprecedented cooperation to **combat piracy**, particularly near the Gulf of Aden. In August 2009, the North Atlantic Treaty Organization commenced **Operation Ocean Shield** in the horn of Africa, where piracy increased close to **200 percent** between 2007 and 2009. This effort built upon **Operation Allied Protector** and consisted of two standing maritime groups with contributions from allied nations. Although the efforts concentrate on protecting ships passing through the Gulf of Aden, they also renewed focus on helping countries, specifically Somalia, prevent piracy and secure their ports. Meanwhile, the United States helped establish **Combined Task Force 151** to coordinate the various maritime patrols in East Africa. Other countries including Russia, India, China, Saudi Arabia, Malaysia, and South Korea, have also sent naval vessels to the region.

At the same time, regional organizations have also stepped up antipiracy efforts. The **Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia** was the first such initiatives, and has been largely successful in facilitating information-sharing, cooperation between governments, and interdiction efforts. And in May 2012, the European Union naval force **launched** its first air attack against Somali pirates' land bases, the first strike of its kind by outside actors to date.

Like individual countries, international institutions have condemned piracy and legitimized the use of

force against pirates. In June 2008, the UN Security Council unanimously passed [Resolution 1816](#), encouraging greater cooperation in deterring piracy and asking countries to provide assistance to Somalia to help ensure coastal security. This was followed by [Resolution 1846](#), which allowed states to use "all necessary means" to fight piracy off the coast of Somalia. In [Resolution 1851](#), the UN Security Council legitimized the use of force on land as well as at sea to the same end. Outside the UN, watchdogs such as the [International Maritime Bureau](#), which collects information on pirate attacks and provides reports on the safety of shipping routes, have proven successful in increasing awareness, disseminating information, and facilitating antipiracy cooperation.

However, such cooperative efforts face several legal challenges. The United States has not ratified the [UN Convention on the Law of the Sea](#) (UNCLOS), which governs crimes, including piracy, in international waters. More broadly, the international legal regime continues to rely on individual countries to prosecute pirates, and governments have been reluctant to take on this burden. Accordingly, many pirates are apprehended, only to be quickly released. In addition, many large commercial vessels rely on [private armed guards](#) to prevent pirate attacks, but the legal foundations governing such a force are shaky at best.

National governments have redoubled efforts to bring pirates to justice as well. In 2010, the United States held its first piracy trial since its civil war, soon followed by Germany's first trial in over [four hundred years](#). Other agreements have been established to try pirates in nearby countries like Kenya, such as the UNODC [Trust Fund to Support the Initiatives of States to Counter Piracy of the Coast of Somalia](#), established in January 2010. Under the mandate of the [Contact Group on Piracy off the Coast of Somalia](#), the fund aims to defray the financial capital required from countries like Kenya, Seychelles, and Somalia to prosecute pirates, as well as to increase awareness within Somali society of the risk associated with piracy and criminal activity. Future efforts to combat piracy should continue to focus on enhancing regional cooperation and agreements, strengthening the international and domestic legal instruments necessary to prosecute pirates, and addressing the root causes of piracy.

Reducing marine pollution and climate change: Mixed progress

Pollution has degraded environments and ravaged biodiversity in every ocean. Much contamination stems from land-based pollutants, particularly along heavily developed coastal areas. The UN Environment Program (UNEP) [Regional Seas Program](#) has sponsored several initiatives to control pollution, modeled on a relatively successful program in the Mediterranean Sea. In 1995, states established the [Global Program of Action for the Protection of the Marine Environment from Land-Based Activities](#), which identifies sources of land-based pollution and helps states establish priorities for action. It has been successful in raising awareness about land-based pollution

and offering technical assistance to regional implementing bodies, which are so often starved for resources. More recently, 193 UN member states approved the [Nagoya Protocol](#) on biodiversity, which aims to halve the marine extinction rate by 2020 and extend protection to 10 percent of the world's oceans.

Shipping vessels are also a major source of marine pollution. Shipping is the most environmentally friendly way to transport bulk cargoes, but regulating maritime pollution remains complicated because of its inherently transnational nature. Shipping is generally governed by the International Maritime Organization (IMO), which regulates maritime pollution through the [International Convention for the Prevention of Pollution from Ships](#) (MARPOL). States are responsible for implementing and enforcing MARPOL among their own fleets to curb the most pernicious forms of maritime pollution, including oil spills, particulate matter such as sulfur oxide (SO_x) and nitrous oxide (NO_x), and greenhouse gas emissions. Port cities bear the brunt of air pollution, which devastates local air quality because most ships burn bunker fuel (the dirtiest form of crude oil). The IMO's [Marine Environmental Protection Committee](#) has also taken important steps to reduce SO_x and NO_x emissions by amending the MARPOL guidelines to reduce particulate matter from ships. Despite such efforts, a 2010 [study](#) (PDF) from the Organization for Economic Development and Cooperation found that international shipping still accounts for nearly 3 percent of all greenhouse gasses.

The IMO has achieved noteworthy success in reducing oil spilled into the marine environment. Despite a global shipping boom, oil spills are at an all-time low. The achievements of the IMO have been further strengthened by commitments by the Group of Eight to cooperate on oil pollution through an [action plan](#) that specifically targets pollution prevention for tankers. The IMO should strive to replicate this success in its efforts to reduce shipping emissions.

Climate change is also exacerbating environmental damage. In June 2009, global oceans reached their highest recorded average temperature: [17 degrees](#) Celsius. As the world warms, oceans absorb increased levels of carbon dioxide, which acidifies the water and destroys wetlands, mangroves, and coral reefs—ecosystems that support millions of species of plants and animals. According to recent studies, ocean acidity could increase by more than 150 percent by 2050 if counteracting measures are not taken immediately. Moreover, [melting ice](#) raises sea levels, eroding beaches, flooding communities, and increasing the salinity of freshwater bodies. And the tiny island nation of the Maldives, the lowest country in the world, could be completely flooded if sea levels continue to rise at the same rate.

Individual states are responsible for managing changes in their own marine climates, but multilateral efforts to mitigate the effect of climate change on the oceans have picked up pace. In particular, the UNEP Regional Seas Program encourages countries sharing common bodies of water to coordinate

and implement sound environmental policies, and promotes a regional approach to address climate change.

Sustainable fisheries policies on the high seas: An ecological disaster

States have the legal right to regulate fishing in their exclusive economic zones (EEZs), which extend two hundred nautical miles from shore—and sometimes beyond, in the case of extended continental shelves. But outside the EEZs are the high seas, which do not fall under any one country's jurisdiction. Freedom of the high seas is critical to the free flow of global commerce, but spells disaster for international fisheries in a textbook case of the tragedy of the commons. For years, large-scale fishing vessels harvested fish as fast as possible with little regard for the environmental costs, destroying 90 percent of the ocean's biomass in less than a century. Overall, fisheries suffer from two sets of challenges: ineffective enforcement capacity and lack of market-based governance solutions to remedy perverse incentives to overfish.

Although there are numerous international and multilateral mechanisms for fisheries management, the system is marred by critical gaps and weaknesses exploited by illegal fishing vessels. Articles 117 and 118 of the [UN Convention on the Law of the Sea](#) (UNCLOS) enumerate the specific fisheries responsibilities of state parties, placing the onus on national governments to form policies and regional agreements that ensure responsible management and conservation of fish stocks in their respective areas. UNCLOS was further strengthened by the [UN Fish Stocks Agreement](#) (FSA), which called for a precautionary approach toward highly migratory and straddling fish stocks that move freely in and out of the high seas. Seventy-eight countries have joined the FSA thus far, and a review conference in May 2010 was hailed as a success due to the passage of [Port State Measures](#) (PSMs) to combat illegal, unreported, and unregulated (IUU) fishing. Yet fish stocks have [continued](#) to stagnate or decline to dangerously low levels, and the PSMs have [largely failed](#) to prevent IUU operations.

[Regional fishery bodies](#) (RFBs) are charged with implementation and monitoring. The RFBs provide guidelines and advice on a variety of issues related to fishing, including total allowable catch, by-catch, vessel monitoring systems, areas or seasons closed for fishing, and recording and reporting fishery statistics. However, only a portion of these bodies oversee the management of their recommendations, and some RFBs allow members to unilaterally dismiss unfavorable decisions. Additionally, RFBs are not comprehensive in their membership and, for the most part, their rules do not apply to vessels belonging to a state outside the body.

Even when regional bodies make a binding decision on a high-seas case, implementation hinges on state will and capacity. In 2003, the UN General Assembly established a fund to assist developing countries with their obligations to implement the [Fish Stocks Agreement](#) through RFBs. The

overall value of the fund remains small, however, and countries' compliance is often constrained by resource scarcity. This results in spotty enforcement, which allows vessels to violate international standards with impunity, particularly off the coasts of weak states. Migratory species like blue fin tuna are especially vulnerable because they are not confined by jurisdictional boundaries and have high commercial value.

Some of the RFBs with management oversight, such as the [Commission for the Conservation of Antarctic Marine Living Resources](#) and the [South East Atlantic Fisheries Organization](#), have been relatively effective in curbing overfishing. They have developed oversight systems and specific measures to target deep-water trawl fishing and illegal, unreported, and unregulated fishing in the high seas. Many regional cooperative arrangements, however, continue to suffer from weak regulatory authority. At the same time, some regions like the central and southwest Atlantic Ocean lack RFBs. Some have suggested filling the void with market-based solutions like [catch shares](#), which could theoretically alter the incentives toward stewardship. Catch shares (also known as limited access privilege programs) reward innovation and help fisheries maximize efficiency by dedicating a stock of fish to an individual fisherman, community, fishery association, or an individual state. Each year before the beginning of fishing season, commercial fishermen would know how much fish they are allowed to catch. They would then be allowed to buy and sell shares to maximize profit. By incorporating free-market principles, fisheries could reach a natural equilibrium at a sustainable level. According to research, more sustainable catch shares policies could increase the value of the fishing industry by more than [\\$36 billion](#). Although allocating the shares at the domestic—much less international—level remains problematic, the idea reflects of the kind of policy work required to better manage the global commons.

Managing the Arctic: At a crossroads

Arctic ice is melting at unprecedented rates. At this pace, experts estimate that the Arctic could be seasonally ice free by 2040, and possibly much earlier. As the ice recedes and exposes valuable new resources, multilateral coordination will become even more important among states (and [indigenous groups](#)) [jockeying](#) for position in the region.

The melting ice is opening up potentially lucrative new sea routes and stores of natural resources. Since [September 2009](#), cargo ships have been able to traverse the fabled Northwest and Northeast Passages, which are significantly shorter than traditional routes around the capes or through the canals. Widening sea routes also means that fishing fleets can travel north in search of virgin fishing stock, and that cruise ships can carry tourists chasing a last glimpse of the disappearing ice. At the same time, untapped resources such as oil, natural gas, rare earth minerals, and massive renewable wind, tidal, and geothermal energy hold enormous potential. In a [preliminary estimate](#), the U.S.

Geographic Society said that the Arctic could hold 22 percent of the world's hydrocarbon resources, including 90 billion barrels of oil and 1,670 trillion cubic feet of natural gas. Beyond oil and gas, the Arctic has valuable mineral commodities such as zinc, nickel, and coal.

But [new opportunities](#) in the Arctic also portend [new competition](#) among states. In August 2007, Russia symbolically planted a [flag](#) on the Arctic floor, staking a claim to large chunks of Arctic land. Other Arctic powers including the United States, Canada, Norway, and Denmark have also laid geographical claims. The European Union crafted a new [Arctic policy](#), and China sent an icebreaker on three separate Arctic expeditions. Each country stands [poised](#) to grab new treasure in this increasingly important geostrategic region.

The [UN Convention on the Law of the Sea](#) (UNCLOS) is a solid foundation on which to build and coordinate national Arctic policies, especially articles 76 and 234, which govern the limits of the [outer continental shelf](#) (OCS) and regulate activities in ice-covered waters, respectively. However, there remains a formidable list of nagging sovereignty disputes that will require creative bilateral and multilateral resolutions. The [Arctic Council](#), a multilateral forum comprising eight Arctic nations, has recently grown in international prominence, signing a [legally binding treaty](#) on search and rescue missions in May 2011 and drawing high-level policymakers to its meetings. While these are significant first steps, the forum has yet to address other issues such as overlapping OCS claims, contested maritime boundaries, and the legal status of the Northwest Passage and the Northern Sea Route.

U.S. Ocean Governance Issues

Introduction

The United States championed many of the most important international maritime organizations over the past fifty years. It helped shape the decades-long process of negotiating the [United Nations Convention on the Law of the Sea](#) (UNCLOS) and has played a leading role in many UNCLOS-related bodies, including the International Maritime Organization. It has also served as a driving force behind regional fisheries organizations and Coast Guard forums. Domestically, the United States has intermittently been at the vanguard of ocean policy, such as the [1969 Stratton Commission](#) report, multiple conservation acts in the 1970s, the [Joint Ocean Commission Initiative](#), and, most recently, catch limits on all federally-managed fish species. The U.S.-based [Woods Hole Oceanographic Institution](#) and the [Monterrey Bay Research Institute](#) have long been leaders in marine science worldwide. And from a geopolitical perspective, the U.S. Navy secures the world's oceans and fosters an environment where global commerce can thrive.

Yet the United States lags behind on important issues, most notably regarding its reluctance to ratify UNCLOS. And until recently, the United States did not have a coherent national oceans policy. To address this gap, U.S. president Barack Obama created the [Ocean Policy Task Force](#) in 2009 to coordinate maritime issues across local, state, and federal levels, and to provide a strategic vision for how oceans should be managed in the United States. The task force led to the creation of a [National Ocean Council](#), which is responsible for "developing strategic action plans to achieve [nine priority objectives](#) that address some of the most pressing challenges facing the ocean, our coasts, and Great Lakes." Although it has yet to make [serious gains](#) (PDF), this comprehensive oceans policy framework could help clear the way for the spadework of coordinating U.S. ocean governance and harmonizing international efforts.

Should the United States ratify the UN Convention on the Law of the Sea?

Yes: The [UN Convention on the Law of the Sea](#) (UNCLOS), which created the governance framework that manages nearly three-quarters of the earth's surface, has been signed and ratified by 162 countries and the European Union. But the United States remains among only a handful of countries to have signed but not yet ratified the treaty—even though it already treats many of the provisions as customary international law. Leaders on both sides of the political aisle as well as environmental, conservation, business, industry, and security groups have [endorsed ratification](#) in order to preserve national security interests and reap its myriad benefits, such as securing rights for U.S. commercial and naval ships and boosting the competitiveness of U.S. companies in seafaring activities. Notably, all of the uniformed services—and especially the U.S. Navy—strongly support UNCLOS because its provisions would only serve to strengthen U.S. military efforts. By remaining a nonparty, the United States lacks the credibility to promote its own interests in critical decision-making forums as well as bring complaints to an international dispute resolution body.

No: [Opponents](#) argue that ratifying the treaty would cede sovereignty to an ineffective United Nations and constrain U.S. military and commercial activities. In particular, critics object to specific provisions including taxes on activities on outer continental shelves; binding dispute settlements; judicial activism by the Law of the Sea Tribunal, especially with regard to land-based sources of pollution; and the perceived ability of UNCLOS to curtail U.S. intelligence-gathering activities. Lastly, critics argue that because UNCLOS is already treated as customary international law, the United States has little to gain from formal accession.

Should the United States lead an initiative to expand the Container Security Initiative globally?

Yes: Some experts say the only way to secure a global economic system is to implement a global

security solution. The U.S.-led Container Security Initiative (CSI) helps ensure that high-risk containers are identified and isolated before they reach their destination. Fifty-eight countries are already on board with the initiative, and many others have expressed interest in modeling their own security measures on the CSI. The [World Customs Organization](#) called on its members to develop programs based on the CSI, and the European Union agreed to expand the initiative across its territory. With its robust operational experience, the United States is well positioned to provide the technical expertise to ensure the integrity of the container system.

No: Opponents maintain that the United States can hardly commit its tax dollars abroad for a global security system when it has failed to secure its own imports. To date, more than \$800 million and considerable diplomatic energy has been invested in CSI to expand the program to fifty-eight international ports, where agents are stationed to screen high-risk containers. Given the scale of world trade, the United States imports more than 10 million containers annually, and only a handful of high-risk boxes can be targeted for inspection. After huge expenditures and years of hard work to expand this program after September 11, 2001, only about [86 percent](#) of the cargo that enters the United States transits through foreign ports covered under CSI, and of that, only about 1 percent is actually inspected (at a cost to the U.S. taxpayer of more than \$1,000 per container). Despite [congressional mandates](#) to screen all incoming containers, critics say that costs make implementing this mandate virtually impossible. The limited resources the United States has available, they argue, should be invested in protecting imports bound specifically for its shores.

Should the United States be doing more to address the drastic decline in the world's fisheries?

Yes: Advocates say that the further demise of global fish stocks, beyond being a moral burden, undermines the commercial and national security interests of the United States. Depleting fish stocks are driven in large part by the prevalence of illegal, unreported, and unregulated (IUU) fishing and the overcapitalization of the global commercial fishing fleet from domestic subsidies. To protect domestic commercial fisheries and the competitiveness of U.S. exports in the international seafood market, the United States should enhance efforts by the [National Oceanic and Atmospheric Administration](#) to manage, enforce, and coordinate technical assistance for nations engaging in IUU fishing.

Domestically, the United States has taken important steps to address the critical gaps in fisheries management. In 2012, it became the first country to impose [catch limits](#) on all federally-managed fish species. Some species like the mahi mahi will be restricted for the first time in history. Many environmental experts hailed the move as a potential model for broader regional and international sustainable fisheries policy. To capitalize on such gains, the United States should aggressively work to

reduce fishing subsidies in areas such as Europe that promote overcapitalization and thus global depletion of fish stocks. The United States could also promote market-based mechanisms, like catch shares and limited access privilege programs, to help fishermen and their communities curb overfishing and **raise** the value of global fisheries by up to \$36 billion.

No: Critics argue that fisheries management is by and large a domestic issue, and that the United States has little right to tell other nations how to manage their own resources, particularly when such measures could harm local economies. They contend that the science behind overfishing is exaggerated, as are the warnings about the consequences of an anticipated fisheries collapse. Existing conventions like the 1995 **Fish Stock Agreement** already go far enough in addressing this issue. Any additional efforts, they contend, would be a diplomatic overreach, as well as an excessive burden on a struggling commercial fishing industry. Critics also question how market-based mechanisms, such as catch-shares, would be distributed, traded, and enforced, warning that they would lead to speculative bubbles.

Should the United States push for a more defined multilateral strategy to cope with the melting Arctic?

Yes: The melting Arctic holds important untapped political, strategic, and economic potential for the U.S. government, military, and businesses. This emerging frontier could potentially support a variety of economic activities, including energy exploration, marine commerce, and sustainable development of new fisheries. Countries such as Russia, Canada, Norway, and China have already made claims to the region, yet the United States remains on the sideline without a comprehensive Arctic strategy. The **UN Convention on the Law of the Sea** (UNCLOS) remains the premier forum of negotiating and arbitrating disputes over contested territory. As a nonparty, however, the United States loses invaluable leverage and position. In addition, the U.S. military does not have a single **icebreaker**, whereas Russia operates over thirty. Experts argue that the U.S. government should also adopt the recently proposed **Polar Code**, which is a voluntary agreement that "sets structural classifications and standards for ships operating in the Arctic as well as specific navigation and emergency training for those operating in or around ice-covered waters."

No: Opponents argue that Arctic Council activities and the 2009 **National Security Presidential Directive**, which updated U.S. Arctic policies, are sufficient. Any collaboration with Canada to resolve disputes over the Northwest Passage might undermine freedom of navigation for U.S. naval assets elsewhere, especially in the Strait of Hormuz and the Taiwan Straits, and this national security concern trumps any advantages from collaborating on security, economic, or environmental issues in the Arctic. Last, given the dominant Russian and Canadian Arctic coastlines, future Arctic diplomacy might best be handled bilaterally rather than through broader multilateral initiatives.

Recent Developments

June 2012: Advancing oceans issues at Rio+20

On June 20, 2012, the UN Conference on Sustainable Development, also known as "Rio+20," convened 180 government delegations, private sector actors, and nongovernmental organizations to discuss major environmental and development issues in Rio de Janeiro, Brazil. Rio+20 marks the twentieth anniversary of the landmark Earth Summit in 1992, which produced the seminal [biodiversity agreement](#).

Ocean issues, or the "blue economy," were one of the seven major themes of the conference. In particular, delegations addressed how to enhance and improve coordination to combat marine pollution and resource scarcity. Australia, New Zealand, and the United States announced that they will [establish](#) the International Coordinating Office for Ocean Acidification, which will be [housed](#) within the International Atomic Energy Agency (IAEA). This represents the first global effort to track and monitor increasing oceanic acidification. Overall, however, language on ocean protection was watered down, suggesting that critical issues on oceans governance will remain unresolved.

May 2012: Renewed push for UNCLOS ratification in U.S. Senate

On May 23, 2012, the Obama administration sent political and military heavyweights to testify before the Senate Foreign Relations Committee (SFRC) to argue for the ratification of the [UN Convention on the Law of the Sea](#) (UNCLOS). Despite prominent endorsement from both sides of the political aisle across the past four U.S. administrations, as well as the expressed support of the U.S. military, corporations, and environmental groups, the Senate has never ratified the treaty. This is largely due to the successful efforts of a small but vocal minority who claim that UNCLOS would curtail U.S. sovereignty, rights, and activities. In her testimony, Secretary of State Clinton [argued](#), "Whatever arguments may have existed for delaying U.S. accession on longer exist and truly cannot even be taken with a straight face."

May 2012: China and the Philippines clash in the South China Sea

After a two-month standoff regarding access to and control over the Scarborough shoal, a disputed area of the South China Sea, China and the Philippines reached a [tentative agreement](#) to find a "peaceful resolution." The situation flared in early April 2012, when the Philippines claimed that Chinese vessels were fishing illegally in the contested area. The dispute was further exacerbated by [joint military exercises](#) conducted by the United States and the Philippines, which reportedly included mock beach invasions.

China, Taiwan, Vietnam, Malaysia, Brunei, and the Philippines have **competing territorial and jurisdictional claims** to the South China Sea, particularly over rights to exploit its potentially vast oil and gas reserves. Control over strategic shipping lanes and freedom of navigation are also increasingly contested, especially between the United States and China.

April 2012: Piracy on the decline

After incidences of piracy peaked in 2011, the International Maritime Bureau (IMB) reported a **28 percent** decline in attacks in the first quarter of 2012. In particular, incidences off the coast of Somalia declined by half—from ninety-seven to forty-three. The marked reduction in piracy attacks is largely due to the increased efforts of ad hoc coalitions patrolling the Gulf of Aden. The United States, European Union (EU), China, and the North Atlantic Treaty Organization (NATO) all contribute to counterpiracy efforts in the region. In May 2012, EU naval forces escalated the campaign by conducting the first **mainland raid** on pirate bases in Somalia. According to estimates by the One Earth Future Foundation, piracy cost commercial shipping and governments upwards of **\$6.9 billion** in 2011.

April 2012: Shell permitted to drill in Arctic

After seven years and \$4 billion in corporate lobbying and public relations campaigns directed at two U.S. administrations, the Obama administration **approved** the Royal Dutch Shell's plans to drill in the Arctic Ocean, which could begin as early as this summer. If all proceeds smoothly, Shell would be the first oil giant to drill for oil in the Arctic Ocean since the early 1990s. Although the melting Arctic has opened up vast new economic opportunities, the move has sparked fresh environmental concerns. The controversial nongovernmental organization Greenpeace is planning on **sending submarines** to monitor Shell's oil drilling, and environmental activists have warned about the potential risk of oil spills. The Government Accountability Office also **released** a report warning of insufficient safeguards to "contain a well blowout or clean up a spill in rough Arctic conditions."

January 2012: U.S. sets unprecedented fishing limits

In January 2012, the United States celebrated a historic milestone for environmental conservation: it became the **first** country in the world to place catch limits on all federally-managed fish species. The U.S. National Oceanic and Atmospheric Administration estimates that the policy, instituted through the **Magnuson-Stevens Act**, will be fully implemented by the 2012 fishing season. Many environmentalists hailed the move as an excellent step towards a sustainable national oceans policy. Some fish species, such as the mahi mahi, will have catch limits placed on them for the first time in history. Joshua Reichert, director of the Pew Environment Group, **stated**, "This simple but

enormously powerful provision had eluded lawmakers for years and is probably the most important conservation statute ever enacted into America's fisheries law." However, critics argue that the new limits are based on flawed underestimates of fish populations and could potentially threaten the livelihood of local economies dependant on fishing.

Options for Strengthening Global Ocean Governance

There are a series of measures, both formal and informal, that can be taken to strengthen U.S. and global ocean governance. First, the United States must begin by finally ratifying the UN Convention on the Law of the Sea. On this foundation, the United States should then tap hitherto underused regimes, update twentieth-century agreements to reflect modern ocean challenges, and, in some cases, serve as the diplomatic lead in pioneering new institutions and regimes. These recommendations reflect the views of [Stewart M. Patrick](#), senior fellow and director of the International Institutions and Global Governance Program, and [Scott G. Borgerson](#), former visiting fellow for ocean governance.

In the near term, the United States and its international partners should consider the following steps:

- *Ratify UNCLOS*

The United States should finally join the [UN Convention on the Law of the Sea](#) (UNCLOS), an action that would give it further credibility and make the United States a full partner in global ocean governance. This carefully negotiated agreement has been signed and ratified by 162 countries and the European Union. Yet despite playing a central role shaping UNCLOS's content, the United States has conspicuously failed to join. It remains among only a handful of countries with a coastline, including Syria, North Korea, and Iran, not to have done so.

Emerging issues such as the melting Arctic lend increased urgency to U.S. ratification. By rejecting UNCLOS, the United States is freezing itself out of important international policymaking bodies, forfeiting a seat at decision-making forums critical to economic growth and national security interests. One important forum where the United States has no say is the [commission](#) vested with the authority to validate countries' claims to extend their exclusive economic zones, a process that is arguably the last great partitioning of sovereign space on earth. As a nonparty to the treaty, the United States is forgoing an opportunity to extend its national jurisdiction over a vast ocean area on its Arctic, Atlantic, and Gulf coasts—equal to almost half the size of the Louisiana Purchase—and abdicating an opportunity to have a say in deliberations over other nations' claims elsewhere.

Furthermore, the convention allows for an expansion of U.S. sovereignty by extending U.S. sea borders, guaranteeing the freedom of ship and air traffic, and enhancing the legal tools available to combat piracy and illicit trafficking. Potential participants in U.S.-organized flotillas and coalitions rightly question why they should assist the United States in enforcing the rule of law when the United States refuses to recognize the convention that guides the actions of virtually every other nation.

- *Coordinate national ocean policies for coastal states*

The creation of a comprehensive and integrated U.S. oceans policy should be immediately followed by similar efforts in developing maritime countries, namely Brazil, Russia, India, and China (BRIC) . These so-called BRIC nations will be critical players in crafting domestic ocean policies that together form a coherent tapestry of global governance. Ideally, such emerging powers would designate a senior government official, and in some cases the head of state, to liaison with other coastal states and regional bodies to coordinate ocean governance policies and respond to new threats. Consistent with the [Regional Seas Program](#), the ripest opportunity for these efforts is at the regional level. With UN assistance, successful regional initiatives could then be harmonized and expanded globally.

- *Place a moratorium on critically endangered commercial fisheries*

Commercial fishing, a multi-billion dollar industry in the United States, is in grave danger. The oceans have been overfished, and it is feared that many fish stocks may not rebound. In the last fifty years, fish that were previously considered inexhaustible have been reduced to alarmingly low levels. Up to 90 percent of large predatory fish are now gone. Nearly half of fish stocks in the world have been fully exploited and roughly one-third have been overexploited. The recent imposition of catch limits on all federally-managed fish species is an important and long overdue first step, which should be expanded and strengthened to a moratorium on the most endangered commercial fisheries, such as the Atlantic blue fin tuna. But tuna is hardly alone in this predicament, and numerous other species are facing the same fate. Policymakers should stand up to intense political pressure and place fishing moratoriums on the most threatened fisheries to give them a chance to rebound. Doing so would be a courageous act that would help rescue collapsing fish while creating a [commercially sustainable](#) resource.

In the longer term, the United States and its international partners should consider the following steps:

- *Strengthen and update UNCLOS*

The [UN Convention on the Law of the Sea](#) (UNCLOS) and related agreements serve as the bedrock of international ocean policy. However, UNCLOS is thirty years old. If it is to remain relevant and effective, it must be strengthened and updated to respond to emerging threats such as transnational crime and marine pollution, as well as employing market-based principles of catch shares to commercial fisheries, especially in the high seas. Lastly, UNCLOS Article 234, which applies to ice-covered areas, should be expanded to better manage the [opening Arctic](#), which will be an area of increasing focus and international tension over the coming years.

The international community should also counter the pressure of coastal states that unilaterally seek to push maritime borders seaward, as illustrated by China's claim to all of the South China Sea. Additionally, states should focus on using UNCLOS mechanisms to resolve nagging maritime conflicts, such as overlapping exclusive economic zones from extended continental shelf claims, and sovereignty disputes, such as that of the Spratly and Hans Islands.

- *Bolster enforcement capacity*

Many ocean-related governance issues have shortcomings not because rules for better management do not exist, but because weak states cannot enforce them. A failure in the oversight of sovereign waters inevitably leads to environmental degradation and, in cases like Somalia, can morph into problems with global implications, such as piracy. Accordingly, the international community should help less developed coastal states build the capacity to enforce (1) fisheries rules fleets; (2) [International Convention for the Prevention of Pollution From Ships](#) regulations to reduce ocean dumping and pollution; (3) other shipping regulations in states with open registries such as Liberia, Panama, Malta, and the Marshall Islands; (4) and existing mandates created to stop illicit trafficking. Developed countries should also help less developed areas monitor environmental variables such as acidification, coral reefs, and fisheries.