Why healthy seas are vital to America's national security



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### **Foreword**

For too long, and at great risk to American interests, the governance and management of the ocean have been treated separately from geopolitics and U.S. national security. In our respective decades of service to every president since Ronald Reagan, we have seen firsthand that the state of the ocean is inseparable from American strength, global stability, and longterm prosperity.

America is, and has always been, a maritime nation. The majority of U.S. trade is maritime based, and the ocean economy supports tens of millions of jobs and contributes billions to U.S. GDP. The ocean plays a pivotal role in America's food security, with the U.S. market

being the largest single-country importer of fish and fish products. On the ocean floor, fiber optic cables enable global communications, and the ocean attracts hundreds of millions of tourists and outdoor enthusiasts annually. For these and many other reasons, the health of the ocean is inextricably connected to America's strength at home and abroad. It is therefore time to renew our commitment to a healthy ocean as essential to our national security, and to the future security and prosperity of the American people.

We endorse this report because it goes beyond cataloging the risks of ocean decline and presents a clear plan to integrate marine health into the heart of U.S. foreign

and security policy. By tracing the connections between ocean degradation and food insecurity, economic instability, and regional conflict, this report reframes the ocean from an environmental issue into a strategic imperative for American strength and influence.

Its findings are grounded in rigorous analysis and align with our professional experience across regions where security, safety, and prosperity depend on sound ocean governance. We believe policymakers, diplomats, national security leaders, and private sector actors alike will find this narrative and its recommendations compelling and actionable.





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## **Executive summary**



The health of the ocean can determine whether we experience peace or conflict, security or instability, prosperity or economic decline.

The United States is a maritime nation. Forward-thinking and wellmanaged ocean governance is an essential pillar of the country's prosperity, security, and global influence. But overexploitation, environmental degradation, poor or insufficient governance, and illegal activities are eroding this foundation — creating risks of conflict, fueling organized crime, and threatening American economic competitiveness. This report reframes ocean health as a geopolitical and national security priority, as well as outlining strategic shifts to secure peace and bolster security and prosperity for the American people.

# A healthy ocean as a strategic imperative

 Peace and stability: Fish is the world's most traded food commodity and a vital source of jobs and nutrition. Given seafood's societal importance, strategic rivals are using distantwater fleets, subsidies, and illicit networks to dominate seafood supply chains, threatening the food security and sovereignty of nations. Changing oceanographic conditions are now shifting fish stocks across borders, creating winners and losers and heightening risks of instability. Dwindling stocks and destructive practices are driving competition and conflict, especially in regions critical to U.S. interests such as the Indo-Pacific, the Arctic, and Latin America. Since the 1970s, fisheries-related conflicts have increased 20-fold, with senior U.S. military leaders warning of fish as a driver of conflict.

#### Homeland security:

Transnational criminal organizations are exploiting seafood as a lucrative, low-risk domain, which undermines rule of law, international relations, and maritime security. The financial losses from illegal, unreported, and unregulated (IUU) fishing are estimated at \$16–36 billion annually, significantly impacting

economies around the world. IUU fishing is also intertwined with drug trafficking, forced labor, arms smuggling, and other transnational crimes. Almost one-third of seafood consumed in the U.S. is linked to IUU fishing, defrauding consumers, undercutting U.S. fishers and domestic seafood markets, and strengthening criminal networks. Lack of transparency and traceability furthers crime along the seafood value chain.

• **Prosperity:** The blue economy supports millions of jobs and generates trillions in economic value. Every \$1 invested in sustainable ocean management yields \$5 in benefits, underscoring the financial case for action. An unhealthy ocean threatens the future of America's blue economy, placing \$8.4 trillion in revenues and assets at risk without stronger governance and management.



## Strategic shifts for U.S. leadership

To safeguard America's interests, this report calls for three major shifts at the intersection of national security and the marine environment:

### 1. Renew American maritime leadership

- Elevate ocean governance and management into national security directives such as the National Security Strategy, the National Defense Strategy, the National Maritime Strategy, and other keystone strategic and policy documents.
- Develop a Blue Economy National Security Action Plan to align federal, private sector, and civil society efforts.

# 2. Protect America's maritime interests through partnerships with friends and allies

- Strengthen maritime domain awareness, integrating environmental science and advanced technology.
- Build partner capacity to enforce sovereign marine resource rights and counter IUU fishing.
- Lead coalitions to ensure global seafood traceability, transparency in foreign access agreements, and adoption of key treaties.

#### 3. Strengthen and further publicprivate sector partnerships

- Incentivize businesses and financial institutions to integrate ocean stewardship into blue economy strategies, plans, policies, and investments
- Expand and support blended finance mechanisms that

- encourage public and private capital to participate in closing the funding gap for ocean health, including through loans, bonds, insurance mechanisms, blended funds, and other innovative blue finance instruments.
- Scale innovation in marine technology, data-sharing, and sustainable aquaculture.

A healthy ocean is an enabler for U.S. national security, a pillar of economic prosperity, and a safeguard of global stability. If the United States fails to act, it risks ceding strategic resources to competitors, empowering transnational criminal organizations, and undermining America's global influence. But by renewing maritime leadership, strengthening alliances, and mobilizing public-private coalitions, America can secure peace, bolster prosperity, and buttress resilience for generations to come.

### Introduction

Surrounded by the Atlantic, Pacific, and Arctic oceans, the United States is a maritime nation. Its economic prosperity, national security, and global standing are inextricably linked to the governance and management of its vast coastlines, maritime commerce and navigation, and global marine resources. Underpinning America's continued success as a nation at home and abroad are healthy, productive, and resilient marine environments.

Despite this dependence, most Americans underestimate how the ocean affects core national interests. Closing this knowledge gap is critically important because the health of the ocean can determine whether we experience peace or conflict, security or instability, prosperity or economic decline.

#### **Strategic intent**

This report puts forward the case for why investing in a healthy ocean is essential to advancing fundamental American priorities. It seeks to build a more expansive coalition of strategic and influential partners to conceive, develop, and expand interventions at the intersection of national security and ocean health.

First, it highlights how dwindling marine resources and the destruction of coastal ecosystems increase the risk of conflict.

Seafood is a major source of food security, jobs, economic activity, and geopolitical competition. It is therefore a strategic commodity that countries are fighting over.

Second, the report demonstrates the deep links between valuable fish stocks, transnational organized crime, and instability. This convergence poses serious risks to American interests.

Third, it showcases how declining ocean health poses risks to the American economy, as well as the nation's economic interests abroad. The blue economy including fisheries, shipping, and coastal tourism — makes a massive contribution to our nation's economic productivity and offers a significant return on investment. If the United States fails to invest in the underlying assets that support the blue economy, then America's power and global influence are diminished — alongside the health of the ocean.

Finally, this report outlines three actionable strategic shifts at the intersection of ocean health and U.S. national security. They are designed to catalyze cost-effective action by policymakers, national security operators, natural resource managers, private sector leaders, and civil society. The outcome of these actions will foster peace, secure the American homeland, and bolster American prosperity and global influence.

#### **Scope and limitations**

This report does not cover every risk or opportunity stemming from the connection between a healthy ocean and U.S. national security. This strategic narrative is an opportunity for disparate stakeholders to recognize how their priorities and areas of interest intersect; to leverage each other's skills, capacities, and resources; and to join forces to achieve their connected objectives.

#### **Future stakes**

The United States' advanced maritime strategy was a major factor in the nation's rise to global power in the years following the Second World War. This strategy created a new global trading system that powered America's 20th century economy, leading to unprecedented prosperity. It enhanced U.S. global naval presence to protect America's interests and further international security, which in turn triggered investments to explore and understand the marine environment.

To remain a global superpower, the United States must make similar strategic choices today. It is time to invest in the governance and management of a healthy ocean to further peace, security, and prosperity.



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# Preserving peace for the American people



#### **Key takeaways**

- Seafood is an important strategic commodity, and the health of marine fisheries, and the ecosystems that support them, has implications for U.S. national security.
- Globally, many fish stocks are overexploited, others are shifting due to changing oceanic conditions, and fishing in many coastal states is increasingly dominated by foreign fleets. This is stoking geopolitical tension and threatening food security, economic stability, and peace in regions critical to U.S. national interests.
- Without proactive diplomatic, economic, and security measures, America risks ceding control of essential marine resources to strategic competitors, undermining peace, domestic prosperity, and global stability.

# Strategic commodities and U.S. national

security

The pursuit of free and secure flows of critical natural resources is integral to America's national security agenda. Historically, the United States has deployed an integrated set of diplomatic, economic, and security tools to ensure that key commodities have transparent and well-regulated supply chains, and do not become a source of conflict.

The United States has also sought to prevent strategic competitors from gaining a disproportionate advantage over critical commodities that would elevate their economic and political power. For example, accessing, controlling, and "turning on and off" the supply of critical resources such as water, grains, or energy is an age-old strategy to accumulate and exercise power over other countries. Some countries'

management of their oil and gas reserves, also known as "petropower," is a modern version of this.

Rare earth minerals are a clear example of a strategic commodity because of their importance to consumer technologies, defense systems, and the clean energy transition. Being dependent on strategic competitors and other foreign markets for these resources is driving the United States to rapidly deploy economic, diplomatic, and other tools to bolster access to these critical commodities.

Seafood requires a similarly strategic response — because food security is national security. Seafood is one of the world's most traded commodities, and increasingly a source of conflict. Strategic competitors of the United States have made headway in dominating large parts of the seafood supply chain, threatening the economic viability of coastal nations heavily dependent on fish, as well as negatively affecting global food security and safety.

Competition over fisheries "has the potential to be a real driver for conflict."

Admiral Samuel Paparo,
 Commander of the U.S.
 Indo-Pacific Command



# CASE STUDY: Rising competition in the Pacific

Conflict over seafood is playing out in the Indo-Pacific, an important strategic domain for the United States, where America's competitors are strong-arming small island nation states to gain economic and military advantage. Changing ocean conditions and increasing competition over limited resources, including from foreign fleets and IUU fishing vessels, threaten social stability and raise the risk of conflict in the region.

Marine natural resources have been a growing source of competition as valuable skipjack and yellowfin tuna stocks move eastward across the Pacific as waters warm.<sup>18</sup> While tuna stocks are currently at sustainable levels, overfishing is a serious threat as economic dependency drives high exploitation rates. The region's island nations have also committed to increasing local tuna consumption by 40,000 tons annually to meet rising food demand.<sup>19</sup> Projected to supply up to

a quarter of dietary protein in the Pacific,<sup>20</sup> the availability of tuna is critical for long-term resilience and food security.

In our research as part of the Oceans Futures platform, WWF found that 20% of fisheries conflict events in the Pacific Island region are linked to poverty. As a result, domestic governments have little incentive to reduce fishing efforts. Access by foreign vessels and the resulting license fees are also a major — though stagnating — form of government revenue. Onshore tuna processing activities are economically important too, though much of the economic value leaks overseas.

At the same time, foreign fishing and maritime research activity continue to escalate regional tensions. <sup>24</sup> WWF's research through the Oceans Futures platform showed the presence of foreign fishers contributed to 45% of fisheries-related conflict events, reflecting their entanglement in resource competition. Indeed, local communities face competitive

disadvantages against well-capitalized foreign fleets operating some of the world's largest purse seine factory vessels. State-subsidized distant-water fishing fleets are dominating the region with reduced operational costs such as fuel. This disparity has contributed to domestic resistance to foreign purse seine fishing agreements, as well as to resistance to purse seine fishing in general.<sup>25</sup>

Admiral Paparo, the Commander of U.S. forces in the region, has laid out a roadmap addressing these dangerous dynamics and offering collaborative opportunities for the national security and marine resource management communities.<sup>26</sup> First, increase maritime domain awareness in the Indo-Pacific. Second, build capacity in partner nations to patrol and defend their sovereign natural resource rights. And third, stand together and build coalitions against the greatest regional perpetrators of natural resource theft.

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This geopolitical marine resource competition is especially intensifying in the Indo-Pacific (see case study), Latin America, and the Arctic (see case study), risking escalating competition and conflict over fish. This runs counter to the United States' objective to further peace, security, and prosperity at home and abroad.

# Seafood: a new geopolitical tool

Over a third of the global population rely on seafood for their primary source of protein.1 Hundreds of millions of people depend on the seafood sector for their jobs, including 2.3 million Americans.<sup>2</sup> Global annual seafood consumption is over 160 million metric tons, which is twice the size of beef consumption and 20 million metric tons more than poultry consumption.<sup>3</sup> Fish is also the world's most highly traded food commodity, and as such is an important economic engine for many countries.<sup>4</sup> These dynamics make fish worth fighting for and countries have done so for centuries.

During the Cold War, one in four militarized conflicts between democracies were over access to fisheries resources.<sup>5</sup> Since the 1970s, international conflict events over fish have increased 20-fold — and without robust interventions, conflicts are likely to increase.<sup>6</sup>

# Fisheries conflict "is a national security challenge warranting a clear response."

 Admiral Karl Schultz, during his tenure as 26th Commandant of the United States Coast Guard

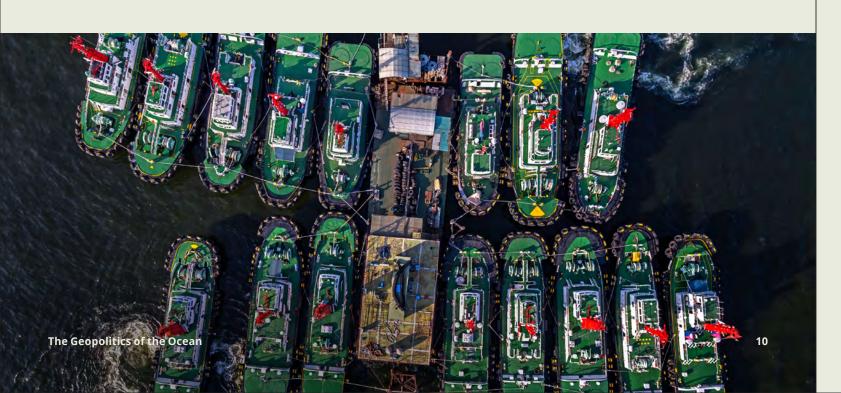
Senior national security leaders are now raising the alarm over fish being a conflict commodity impacting U.S. security and interests in important regions. Admiral Samuel Paparo, the Commander of the U.S. Indo-Pacific Command, stated last year that competition over fisheries "has the potential to be a real driver for conflict."<sup>7</sup> Similarly, during his tenure as 26th Commandant of the United States Coast Guard, Admiral Karl Schultz said that fisheries conflict "is a national security challenge warranting a clear response."8

Meanwhile, changing ocean conditions will continue to affect the distribution and migration of fish stocks, further increasing the risk of conflict. By the end of this century, up to 25% of fish stocks are projected to leave one nation's waters for another's, with some stocks moving into international waters. This will result in winners and losers. Some countries will end up with more fish, while others will lose access, triggering significant implications for their food security, economies, and political stability. This will result in elevated competition and potential conflict in areas of strategic importance to the United States (see the case studies for deeper dives).

The threat of conflict is already pervasive and present in every ocean. Indeed, research shows that the next high-intensity fisheries conflict could occur anywhere, disrupting economies and driving instability on every coastline around the globe.<sup>10</sup>

20x

There has been a 20-fold increase in conflict over fish since the 1970s





- In the South China Sea, China's territorial ambitions have escalated into repeated clashes with fishers and military vessels of neighboring nations.
- **The Pacific Islands** recorded 156 fisheries conflict events between 2011 and 2024.
- In South America, distantwater fishing fleets line the edges of countries' exclusive economic zones and unique biodiverse ecosystems such as the Galapagos Islands.<sup>11</sup> Argentina has militarily engaged Chinese fishing fleets after

- gaining knowledge of hundreds of vessels fishing illegally in its waters.
- In Africa, illegal fishing grievances sparked the Somali piracy issue, and 11 West African nations have been identified as future fisheries conflict hotspots.
- In the Middle East, fisheries have been weaponized in Yemen: Houthi militias have destroyed fleets of fishing boats, eliminating livelihoods, 12 while attacks on Yemen's fishing vessels and other infrastructure have decimated the industry. 13
- In South Asia, India faces fisheries conflict on multiple fronts: The undefined maritime boundary with Pakistan requires routine prisoner exchanges, while in Palk Bay, Sri Lanka's navy arrested 19 Indian fishers in just two weeks in July 2025.
- In Europe, seafood was a motivating factor in Iceland's decision to halt its EU accession process in 2013; additionally, tensions persist between Turkey and Greece over fish in their Aegean Sea territorial dispute.

## Ocean health is key to preserving peace

Every fishing ground in the world depends upon a delicate balance of social, ecological, and political systems. Investing in fisheries management, good ocean governance, and effective enforcement and deterrence is an investment in U.S. strategic interests of peace and stability. But intervention is needed now to prevent conflicts from escalating.

Decades of overfishing have left more than a third of global marine fish stocks overexploited — though in some regions the proportion of overexploited stocks is much higher. This leads to increasing competition over remaining resources — especially considering continued population growth in regions dependent on seafood.

Habitat loss can, through the decline in nursery grounds, feeding areas, and spawning sites, directly reduce fish populations and impede their recovery. Widespread mangrove deforestation, for example, has destroyed critical nursery habitats for snapper and shrimp, while also removing natural coastal defenses against flooding and storm surges. The loss of these protective ecosystems leaves coastal communities more vulnerable to disasters, displacing people,

undermining local economies, and heightening resource insecurity. These cascading impacts can contribute to regional instability, increasing the risk of social unrest and migration pressures.

Illegal, unreported, and unregulated (IUU) fishing — discussed more in the next chapter — is also depleting global fisheries, upending global and regional fisheries governance, and negatively impacting the United States, as well as nations all over the world.

Competition for access to fish plays out on a global scale with deep geopolitical roots. Some countries, including U.S. strategic competitors, have vast distant-water fishing fleets notorious for buying the rights to countries' fishing grounds, violating other nations' sovereign waters to fish illegally, overharvesting, and flouting rules and regulations. As many as two-thirds of some countries' fishing vessels operate with disregard for international and coastal state laws, and such foreign fishing vessels are reported to be present in the waters of up to 93 countries.16

Distant-water fishing operations are enabled by state-supported legal, economic, and strategic doctrine. Direct and indirect subsidies and extensive networks of onshore and offshore support systems facilitate

illicit global access to fish.<sup>17</sup> Offshore systems such as refrigerated cargo vessels, oil tankers for refueling, and floating seafood processing bases allow distant-water vessels to remain at sea for years. This enables countries to access, lay claim to, and dominate the supply of seafood as a geopolitical tool. As the United States has learned in the rare earth minerals context, it is not in America's interest to allow geostrategic competitors to dominate access to critical resources. This holds true for seafood.

Healthy and sustainable marine resources are an enabler for U.S. national security and a countermeasure to escalating geopolitical competition. Elevated marine resource governance and management of the ocean therefore warrant greater geopolitical attention, along with strengthened partnerships with, and resources from, the national security community.

25%

of all militarized conflicts between democracies during the Cold War were over fish





#### CASE STUDY: Conflict looms over the Arctic

As its ice rapidly recedes, the Arctic is being opened to new economic possibilities — and potential conflict. Current and future access to the Arctic Ocean, most of which is unexplored, is creating new oil claims, trade routes, and potential fishing grounds. The region is becoming a zone of contention for political and commercial control, including a significant influx of research vessels from non-Arctic nations.<sup>27</sup> Yet the governance systems currently in place are ill-equipped to deal with these emerging threats. If mitigation measures fail, the region risks becoming a major geopolitical flashpoint.

Conflict over fisheries in the Arctic stems from disputes over access to fishing grounds, the presence of foreign fishing vessels inside exclusive economic zones, illegal fishing, and perceived or actual changes in the health of fish stocks.<sup>28</sup> In short, the Arctic is ripe for conflict over fish.

Unlike other global regions where diminishing stocks lead to increased conflict, the Arctic is experiencing disputes over moving fish stocks and the arrival of new species.<sup>29</sup> Tensions are already rising, especially as foreign vessels crowd the U.S.-Russian border, primarily fishing for valuable pollock stock.

Alaskan pollock is shifting from America's exclusive economic zone waters to those of Russia and other countries.<sup>30</sup> Pollock is a cornerstone of the American seafood industry, with the fishery valued at nearly \$2 billion annually and responsible for about 30,000 U.S. jobs.<sup>31</sup>

Responding to these dangerous dynamics requires interventions across national security and marine resource communities. Priority areas include:

 Investing in improved knowledge, management, and enforcement in fisheries in Alaska, including improved data collection, stock assessment models, and harvest rules.

- Negotiating further fisheries agreements in the Arctic, including as part of the Central Arctic Ocean Fisheries Agreement and, in areas where multilateral agreement is needed, through establishing a new regional fisheries management organization.
- Increasing maritime domain awareness capacities and the identification of areas where both the national security community and marine management stakeholders agree that no intrusions by other nations should occur.
- Facilitating cooperation through environmental peacebuilding, including using the factors that drive fisheries conflict for positive outcomes.
- In collaboration with international partners, countering IUU fishing and crime as one of the U.S. military's authorized mission sets, enabling capacity-building and cooperation in the Arctic and globally.

# Securing the American homeland

#### The Retail Value of Transnational Crime Counterfeiting \$923 billion to \$1.13 trillion **Drug Trafficking** \$426 billion to \$652 billion **Illegal Logging** \$52 billion to \$157 billion **Human Trafficking** \$150.2 billion Illegal Mining \$12 billion to \$48 billion IUU Fishing \$15.5 billion to \$36.4 billion Illegal Wildlife Trade \$5 billion to \$23 billion **Crude Oil Theft** \$5.2 billion to \$11.9 billion **Small Arms & Light Weapons Trafficking** \$1.7 billion to \$3.5 billion **Organ Trafficking** \$840 million to \$1.7 billion **Trafficking in Cultural Property** \$1.2 billion to \$1.6 billion \$1.6 trillion to \$2.2 trillion Total Source: Transnational Crime and the Developing World

#### **Key takeaways**

- Transnational organized crime poses a grave and growing threat to U.S. national security and its economy, and IUU fishing is intertwined with drug trafficking and human rights abuses.<sup>32</sup>
- Valued in the billions, IUU fishing undermines lawful trade, fuels illicit networks, and risks escalating maritime instability.
- A coordinated, well-funded response focused on protecting and managing global fisheries is critical to safeguarding America's homeland and economic interests.

# The strategic threat of transnational organized crime

Combating transnational organized crime is a strategic and national security imperative for the United States. Valued at over a trillion dollars annually, the global illicit economy destabilizes societies, disrupts global markets, floods American communities with illegal drugs such as cocaine and fentanyl, and illegally moves people across borders with little regard for their physical well-being and safety. It also jeopardizes the lawful trade on which American prosperity depends — especially in natural resources and key export markets.

Some nations exploit organized crime to advance their geopolitical goals. During the Cold War, the Soviet Union leveraged criminal networks to weaken democracies and promote communism. Today, rogue states and some U.S. competitors enable illicit activity to challenge American interests and erode global stability.

Historically, U.S. national security strategy has recognized this threat, and the United States has deployed a broad range of tools to fight transnational organized crime. Today, emerging threats — especially in the marine environment — require expanded efforts and enhanced cooperation and collaboration across government, and in partnership with NGOs and private sector interests.

# The world's largest crime scene remains largely unseen

The ocean is vast, difficult and expensive to monitor, and has historically been underprioritized and under-resourced. This is partly why transnational organized criminals flourish on the world's seas, and profit from the illegal seafood trade (see case study).<sup>33</sup> IUU fishing — worth an estimated \$16–36 billion annually<sup>34</sup> — is one of the leading sectors of transnational organized crime.

The United States is heavily importdependent, and 13–32% of its wild-caught seafood is tied to IUU fishing. <sup>35 36</sup> This defrauds American consumers and creates unfair competition for U.S. fishers as illegal products are often cheaper due to illegal gear, fishing in off-limit areas, and ignoring protections for endangered species. <sup>37</sup> IUU fishing is also rife with human rights violations, including slavery and wage theft. In one assessment, nearly two-thirds of countries assessed — representing 98% of seafood production by volume had forced labor, child labor, or human rights violations in their supply chains.38 The International Labour Organization estimates that more than 128,000 fishers are trapped in forced labor worldwide,39 and their conservative methods estimate that more than 100,000 deaths occur at sea in the fishing industry per year.40

If ocean health continues to decline, the future risks will become increasingly severe. Depleted fish stocks could drive millions of fishers toward illicit maritime activity. Military leaders have highlighted this convergence, warning, for example, that unemployed Iranian fishers have been involved in arms smuggling between Iran and the

Houthis.41 In 2023, the U.S. Navy seized over 2,000 AK-47 assault rifles from a Yemeni-crewed fishing vessel in the Gulf.<sup>42</sup> In 2016, the Australian navy discovered more than 2,000 weapons hidden under nets on a small Iranian fishing boat bound for Somalia.<sup>43</sup> In 2021, the Indian Coast Guard arrested Sri Lankan fishers with weapons onloaded in Karachi to be distributed in Australia and Europe.<sup>44</sup> And in 2025, the Malaysian police listed fishing boats as one of the methods used to smuggle arms into their country.<sup>45</sup>

13%-32%

Between 13 and 32% of seafood consumed by Americans is linked to IUU fishing



Along with weapons, criminal groups recruit or coerce fishers into trafficking people and drugs. There are accounts of British fishers being offered 25 times their daily wage to smuggle people into the United Kingdom. 46 Libyan fishers lured by the potential for wealth have become involved in transporting migrants to Europe.47

Recognizing the growing threat, the U.S. Coast Guard has declared IUU fishing the world's top maritime security challenge, surpassing piracy.<sup>57</sup> Addressing this crisis with a surveillance of global fisheries can well-resourced, strategic response can significantly advance U.S. national security interests.

\$16-36B IUU fishing is worth \$16–36

billion annually

This will need solutions for the extensive network of onshore and offshore support systems, closing the loopholes that malign actors exploit to evade enforcement from regulatory agencies.

Overly militarized responses to transnational organized crime are expensive and, in the case of IUU fishing, are treating the symptoms, not the cause. For the United States and its friends and allies, investing in sustainable management and effective monitoring, control and be a more cost-effective long-term approach. This has been seen in the governance of America's own fish stocks through the years.

The Congressional Maritime Security and Fisheries Enforcement Act (MSAFE) is a laudable initiative that has served to coordinate the efforts of U.S. government. MSAFE authorized a whole-of-government

approach to fighting IUU fishing that coordinates the efforts of 21 federal agencies. However, more needs to be done because the working groups have little to no funding and their authority and expertise is underutilized. Creating further synergies between the U.S. government and nongovernmental organizations with global capacity and presence would also be a force multiplier.

Combating transnational organized crime is a strategic and national security imperative for the United States.





#### **CASE STUDY: Natural resource** crimes, drug cartels, and the "cocaine of the sea"

In November 2024, the U.S. Treasury Department announced sanctions against members of Mexico's "Gulf" drug cartel — a designated foreign terrorist organization, and one of Mexico's oldest organized crime groups, which operates in the border cities across from McAllen and Brownsville, Texas.48 Commercial fishing is a profitable business for drug cartels. At the U.S. international maritime border, the Gulf cartel uses fishing boats to facilitate drug and migrant smuggling ventures.<sup>49</sup> They also harvest tons of red snapper, a commercially valuable but ecologically vulnerable species, often also landing sea turtles at

the same time (as "bycatch").50 The United States has strict catch limits for shark species and red snapper, so they are more abundant in U.S. waters. As a result, Mexican fishers routinely cross into U.S. fishing grounds, violating American sovereignty and stealing valuable natural resources.<sup>51</sup> Cartels can earn millions from the landing, processing, and subsequent exporting of stolen seafood back to the U.S. market.<sup>52</sup>

Cartels are also active in the Gulf of California. The Sinaloa Cartel and the Cartel Jalisco Nueva Generacion began taking over the fishing industry by targeting fishers harvesting prohibited species, such as the totoaba.53 The world's most endangered marine mammal, the vaguita porpoise, is on the brink of extinction from being caught as bycatch in these fisheries, with only around 10 individuals remaining. Totoaba numbers are also in a

critical state. Fishing for totoaba has been banned in Mexico since the 1970s, but there is high demand — and a price premium for its swim bladder, which is used in Chinese traditional medicine. The bladders fetch thousands of dollars on the black market and have been nicknamed the "cocaine of the sea" — making the illegally harvested fish a lucrative commodity for drug cartels.54

After targeting fishers of prohibited species, criminal groups extorted fishers of low-value seafood, then large companies that are fishing high-value species for export. Legal and illegal fishers, fishers' cooperatives, seafood processing plants, transporters, and exporters have been taken over — in other words, the whole value chain.55 In the words of one fisher. "How do we resist if the government does not back us up?"56

## **Promoting American** prosperity



#### **Key takeaways**

- The U.S. blue economy which includes fisheries, shipping and shipbuilding, coastal tourism, and other maritime industries — is a powerful engine for American prosperity and global influence.
- Its growth and resilience depend on maintaining healthy marine ecosystems, through strategic investments in governance, management, and technological innovation.
- To safeguard economic security and unlock trillions in potential value, the U.S. must take a leadership role in coordinating public policy, incentivizing and partnering with the private sector, and convening international partnerships to manage ocean resources sustainably and lead global blue economy development.

innovative ocean technology. However, successfully growing these industries will require America to maintain, protect, and restore marine ecosystems.

Two-thirds of globally listed companies depend, either directly or indirectly, on a healthy ocean.58 Globally, the total economic value of a healthy ocean has been estimated at \$24 trillion<sup>59</sup> — but unsustainable practices put nearly \$8.4 trillion in revenues and assets at risk over the next decade. 60 Conversely, investing in businesses and opportunities that sustain, build, restore, and protect ocean ecosystems could unlock new opportunities worth trillions by 2030.61

#### **Sustaining U.S. global** influence through economic growth

America's economic strength at home underpins its global influence abroad. With vast natural resources, a powerful consumer base, privileged market access, and unmatched financial and diplomatic leverage, the United States holds a unique position within global markets. Preserving this advantage requires forwardlooking investments, innovation, and a focus on sectors that deliver long-term value.

Growing the U.S. blue economy offers a unique opportunity to enhance American prosperity and strengthen its global power. The United States enjoys the secondlargest marine territory in the world, which can fuel economic growth through food production, maritime trade, and coastal tourism, backed by strategic finance and

#### Securing growth and resilience through investments in the **U.S. blue economy**

Investing in the blue economy makes financial sense: Every \$1 invested delivers \$5 in returns that fuel security, prosperity, and resilience for the American people.<sup>62</sup> Blue food, shipping, tourism, and marine technology are rapidly growing sectors, and their continued prominence depends on further investments and business stewardship.

The ocean economy is worth \$24 trillion in asset value

#### America's blue food success story — and its global exposure

American commercial fisheries land \$6 billion worth of seafood from U.S. waters every year, and the U.S. seafood sector as a whole is worth over \$320 billion. The seafood sector employs around 2.3 million people in America, and contributes to feeding most U.S. households.63 Globally, seafood production, including both fisheries and aquaculture, hit a record high of \$472 billion in value in 2022.64 Substantial investments by the U.S. government in the resource base that underpins this valuable industry have demonstrably improved domestic fisheries management — today, approximately 90% of U.S. fisheries are sustainably managed.65

\$472B

The global seafood market is worth \$472 billion per year

While continued investment remains critical, American wildcapture fisheries are largely a success story in sustainably providing food, jobs, and income for American families. However, 75–85% of seafood consumed in the U.S. is imported<sup>66</sup> — leaving U.S. domestic markets and consumers exposed to the risks embedded in volatile international supply chains due to declining global fish stocks and other dynamics explored above.

The scale of these risks is significant, with global estimates suggesting that over \$3 trillion could be at risk over the next decade due to a lack of effective management of the world's fisheries and aquaculture sector. American companies that import fish rely on the security and availability of supply, and should use their supply chain leverage to support and encourage improved practices and future-proof their businesses. If managed well, globally we could save just under \$952 billion in potential value at risk.67

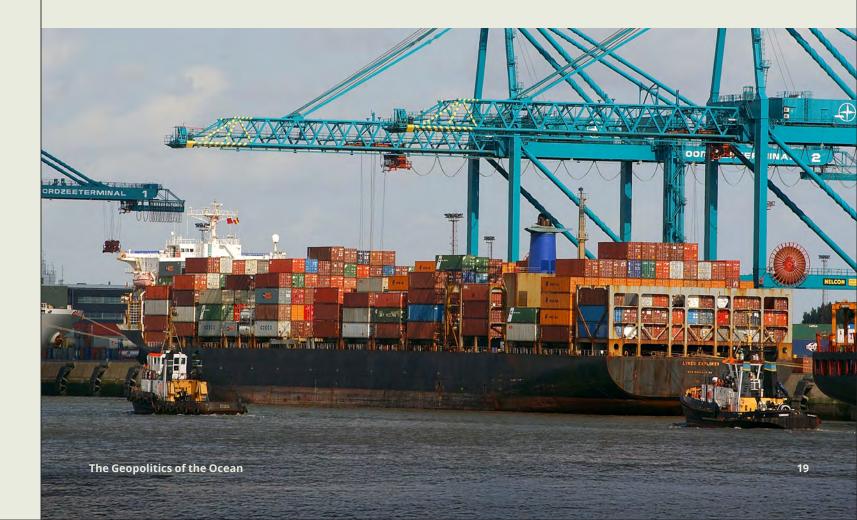
#### Securing global shipping amid environmental risks

Maritime shipping and shipbuilding facilitate U.S. participation in global trade, which is vital to American prosperity. An estimated 80% of all goods are transported by sea and without a reliable shipping industry, the global economy would grind to a halt.68

80%

of all global goods are transported by sea

Shipping and ports also depend on healthy ecosystems to ensure that vessels can safely and efficiently navigate. Habitat loss and degradation around critical port infrastructure, unpredictable and increasingly extreme weather, unpredictable vessel interactions with endangered or vulnerable marine species, and shifting





regulations pose increasing operational and reputational risks to ports and vessels.<sup>69</sup>

The potential value at risk due to these and other related factors has been estimated at \$875 billion globally. For the shipping and shipbuilding sectors to continue to deliver secure market access for goods coming in and out of the United States, investments are needed in protecting and restoring natural infrastructure, technical upgrades to reduce pollution, and enhancements to voyage management systems so vessels avoid critical areas for marine species.

### Protecting the U.S. tourism sector by investing in ocean health

The coastal and marine tourism industry is a major contributor to U.S. economic prosperity. The industry employs around 10 million Americans and is a top U.S. export in terms of value.<sup>71</sup> The sector's success is deeply reliant on healthy marine and coastal ecosystems.

Coastal tourism destinations, in America and worldwide, depend on nature — beautiful coastlines, pristine waters, and charismatic marine wildlife — to attract and retain guests. Yet these very attributes are often threatened by development processes that result in environmental degradation, the loss of key species, coral reef destruction and bleaching, and pollution.

Globally, ocean health decline puts over \$4 trillion of value at risk in the tourism sector.<sup>72</sup> For example. coastal property values are directly affected by the health of adjacent ecosystems such as mangroves and reefs, which provide billions of dollars' worth of natural protection in the face of flooding and storms.<sup>73</sup> Areas where these ecosystems have been degraded or removed have seen declines in property values and increased costs associated with flood damage, insurance claims and premiums, and in some cases, a lack of insurability altogether.<sup>74</sup> Conversely, areas where reefs or mangroves have been restored have seen increases in property values,

long-term resilience and business viability, with the wider economic benefits of restoration often far outweighing the costs.<sup>75</sup>

To maintain the prominence of the U.S. coastal tourism industry — both in terms of attracting visitors to America's unique coastlines and establishing tourism destinations overseas — sustained and increased investment is needed to strengthen the health of marine and coastal ecosystems.

## Driving the future of the blue economy through technology

Driving innovation in marine science and technology will unlock further growth opportunities in the U.S. blue economy, and can significantly enhance U.S. leadership in marine industries, trade, and development. Across the U.S. political landscape, American prominence in critical and emerging technologies has been a priority, and blue technology should be no different.

America's marine technology sector is a rapidly growing and highly diversified industry with critical

applications for defense, food production, public health, maritime transportation, energy, and ocean exploration.<sup>76</sup> Innovations such as underwater drones and advanced ocean monitoring systems significantly improve maritime domain awareness, enabling better oversight of critical fisheries, mineral reserves, and marine biodiversity that fuels breakthroughs in pharmaceuticals and biotechnology.<sup>77</sup>

## 2.3M

U.S. fisheries support 2.3 million jobs

Aquaculture innovations, such as integrated approaches that link two or more seafood farming activities, or cutting-edge monitoring tools that reduce disease risk, can boost food production and create new market opportunities.<sup>78</sup>
Al-enabled shipping and port operations streamline logistics and reduce costs. Innovative satellite surveillance applications enhance maritime safety, maritime domain awareness, enforcement against maritime crimes, and disaster and major oil spill response.<sup>79</sup>

Together, these technologies support informed decision-making and resource stewardship, driving blue economy growth and prosperity for the American people.

### The role of finance in protecting ocean assets

U.S. financial institutions are global leaders in providing financial capital to blue economy businesses. This is vital to American prosperity but, in the absence of robust risk mitigation mechanisms, can leave these institutions — and the U.S. finance industry as a whole — exposed to the financial risks associated with ocean degradation.<sup>80</sup>

Fortunately, a growing number of banks are recognizing the financial risks of ocean health decline and are putting in place simple, low-cost measures to protect their investments. Collectively, this is safeguarding billions of dollars.

The U.S. finance sector controls large sums of capital that influence ocean health. Banks and other financial actors have a critical role to play in addressing environmental risks, driving improvements in the way companies in ocean-related industries operate, and investing in the blue economy sectors that can drive U.S. prosperity.

#### American blue economy leadership means environmental leadership

The U.S. has a unique opportunity to lead the sustainable development of the blue economy — enhancing economic prosperity, maintaining coastal and marine livelihoods, creating new jobs, and strengthening national security. But without coordinated and sustained investment in marine resource management, these economic benefits cannot be realized — in fact, we will face substantial losses.

To safeguard America's strategic interests, it is critical to align public policy and financial flows as well as diplomatic and national security efforts to shape ocean governance in ways that minimize ecological and financial losses while maximizing economic and maritime stability for the 21st century.



# Strategic shifts for peace, security, and prosperity



The United States is a maritime nation. Poorly governed and ill-managed marine environments threaten American peace, security, and prosperity. A productive and resilient ocean is foundational for the nation's continued strength at home and abroad.

Ocean stakeholders have solutions to improve the governance, management and health of the ocean, but it will require renewed American leadership and catalytic partnerships at the intersection of national security and ocean health to bring them to fruition. Rather than providing a detailed list of necessary interventions, 81 this report concludes with three calls to action that represent major strategic shifts in approaching these issues, building on the work that is already underway across the public and the private sector.

## 1. Renew American maritime leadership

A healthy ocean is a geopolitical issue of huge strategic importance to the United States, affecting the government's ability to deliver peace, security, and prosperity to its citizens. In the face of mounting threats, the United States needs to renew its maritime leadership.

This begins with recognizing the geopolitical importance of good governance and well-managed marine resources in the government's most important strategic directives, such as in the U.S. National Security Strategy, the National Defense Strategy, the National Maritime Strategy, the National Intelligence Strategy, and other strategic and policy documents.

Once provided with this mandate, the National Security Council can lead such efforts as developing a "Blue Economy National Security Action Plan." This would empower the U.S. interagency and the private sector to develop plans and commit resources to protect, manage, enforce, and deter threats to America's blue economy, as well as to the international markets, supply chains, and ecosystems on which it depends. America's commitment, resources, and diplomatic efforts — some of which are specifically highlighted below — are profoundly important to counter the maritime threats and pursue the blue economic opportunities laid out in this report.

# 2. Protect America's maritime interests through partnerships with friends and allies

As part of America's renewed maritime leadership, in regions of strategic importance, especially Latin America, the Indo-Pacific, and the Arctic, the United States should increase collaboration with friends and allies and their private sectors on action plans to support national security and economic interests. Action rests on four pillars that offer collaborative opportunities for the U.S. national security community, marine resource managers, and our friends and allies.

- Increase maritime domain awareness, emphasizing threats and collaborative opportunities at the intersection of ocean health, national security, and global stability. This should include incorporating public and private sector environmental science and marine technology capabilities and resources into governmental maritime domain awareness efforts to better predict and mitigate conflict related to ocean resource competition. The use of Al-enabled predictive analytics that integrate ecological data and other forms of intelligence to anticipate geopolitical risks should also be advanced. Strategic war games and tabletop exercises based on these analytical resources would further increase capacity across America's national security apparatus.
- Increase capacity-building efforts among friends and allies to protect their marine natural **resources**, including marine resource management, enforcement, and deterrence against those who seek to steal or destroy other nations' resources or ecosystems. Building a coalition to counter the activities of our strategic competitors should not be America's financial responsibility alone, and costeffective funding solutions exist. Rather than raising additional funds, the United States government should authorize and deploy resources from established sources like the Defense Security Cooperation Fund and the State Department's International Narcotics and Law Enforcement funds in recognition that these maritime issues are of a geopolitical nature and that strengthening our allies' and partners' capabilities strengthens U.S. national security.
- Increase coalitions to increase awareness of illicit and hostile maritime activities, such as efforts to undermine well-governed and well-managed marine environments to control seafood supplies and exercise influence over coastal states and communities. These efforts can take place in bilateral, regional, or international forums.

 Build a coalition to further national, regional, and global regulatory changes to address illegal and opaque practices in the seafood sector. A key change should be to ensure all imported seafood is verifiably legal and traceable, including through strengthened enforcement, inspections, and audits to prevent the entry of illegal goods into the American market and those of our allies. To incentivize sustainable marine resource management and support the American fishing industry, the United States should leverage trade policy and agreements to ensure trading partners adopt binding environmental and labor standards comparable to U.S. domestic requirements. America should increase cooperation with partners to strengthen and harmonize import control systems, share information on violations, and promote catch documentation schemes and traceability in source countries.

The United States government can strengthen the system for sanctions and penalties for countries whose vessels are engaged in IUU fishing, including by strengthening international regional fisheries bodies' authority for monitoring, inspections, and sanctions against IUU practices, especially for highrisk fisheries. Transparency and disclosure around the details of foreign access agreements are key to understanding what vessels are authorized to operate and where, and to reduce the opportunities for corruption. The United States should require countries that export to the U.S. market to publish details of their foreign access agreements; those that fail to do so should be listed for IUU fishing under the High Seas Driftnet Fishing Moratorium Protection Act and face subsequent penalties and sanctions. The United States should also promote transparent and public human rights due-diligence frameworks for corporate supply chains and transparency around labor and management conditions.

Finally, the United States should promote adoption, ratification, and implementation of the High Seas Treaty, World Trade Organization Fishing Subsidies Agreement, and the U.N. Port State Measures Agreement.

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#### 3. Strengthen and further publicprivate sector partnerships

As with all major geopolitical challenges facing the United States — past and present — solutions do not solely rest with the government but must be paired with commitments from the private sector to best serve national interests. The private sector has both a business imperative, and a broader responsibility to the American people, to establish business models and financing practices that deliver economic growth in a manner that furthers long-term protection and management of the ocean. While policy, programmatic, and financial cooperation across the public and private sector exists today, more robust efforts to leverage a healthy ocean as a catalyst to economic growth could significantly enhance American peace, security, and economic prosperity.

A U.S. blue economy public-private partnership model should include foundational expectations as well as discretionary incentives for businesses and financial institutions to embed ocean stewardship into core business and investment models. The U.S. government should work together with leaders in key blue economy sectors, both domestically and internationally, to design policies and highlight best practices to build a thriving, resilient blue economy that delivers prosperity to the American people, now and in the future.

Businesses operating at home and abroad should partner with civil society organizations to tackle critical issues, leveraging their expertise and establishing trust and buy-in with local governments and communities.

This can enable the co-creation and deployment of unique, place-based solutions; for example, how and where commodities are sourced and how and where infrastructure is built to maximize long-term resilience and return on investment.

Both the government and the private sector should commit to develop and deploy financial instruments, such as blue bonds, that can generate large-scale, additional capital to strengthen national security and ocean health in priority jurisdictions. Concerted investment by both the government and the private sector is also needed in technological innovations to take on the plethora of challenges at the intersection of marine governance, management, and national security.<sup>82</sup>

#### In closing

This report is an effort to reframe the strategic conversation on the connections and interplay between the United States as a maritime nation and U.S. priority objectives for peace, security, and prosperity. The intersection of national security and ocean health is an underdeveloped area of American statecraft. As such, it presents both risk and opportunity: Risk if we don't collectively take it seriously and give it the urgent attention that it deserves, opportunity if we pursue it vigorously together.

#### The Geopolitics of the Ocean

Convened by:





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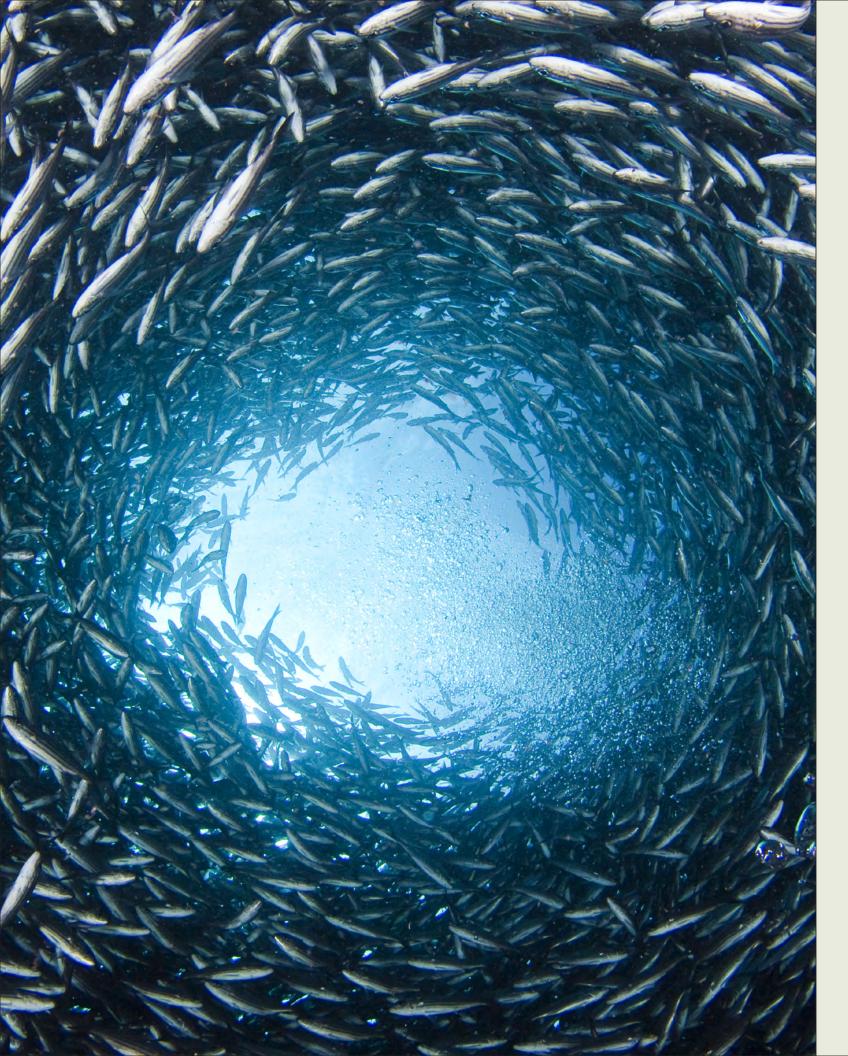
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