

International agencies co-operate to tackle illegal fishing

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Illegal, unreported, and unregulated (IUU) fishing is a key threat to maritime security. Dr Lee Willett examines the multi-agency co-operation required to tackle the risk.

Key Points

- Illegal, unreported, and unregulated fishing is referred to as a compound, convergence, or nexus threat, as it encompasses criminality across a range of maritime security risks.
- Tackling the threat requires multi-agency co-operation at national and international levels.
- At sea, there is a balance between building enforcement presence and intelligence-led targeting capability, but strengthening both elements has a deterrent impact.

Since the early 2000s, there has been an increased international political focus on the use of the sea, including its economic value. In turn, this focus has raised awareness of maritime criminality. Although narcotics smuggling and piracy have received continued high-level attention, a threat moving increasingly into the political spotlight is illegal, unreported, and unregulated (IUU) fishing.

A November 2019 report by the Royal United Services Institute (RUSI), titled *Turning the Tide? Learning from Responses to Large-Scale Illegal, Unreported, and Unregulated Fishing in Five Countries*, defined large-scale IUU fishing as, “illegal, unreported, and unregulated marine capture fishing activity by commercial vessels large enough to operate in exclusive economic zones (EEZs – the area beyond and adjacent to the territorial sea, up to 200 n miles (nm) from the shore’s baseline) and the high seas”.

IUU fishing has had a detrimental impact on national and international security. “IUU fishing endangers food security, undermines the rule of law, and deprives states of revenues,” Charlie de Rivaz, an organised crime and maritime security expert and co-author of the RUSI report, explained to *Janes* in March. “It is also a convergence crime, intersecting with other forms of criminality such as the trafficking of drugs, weapons, wildlife, and people,” he added.



US Coast Guard Chief Petty Officer Sean Keeman of the USCGC Hawksbill uses binoculars to investigate a fishing vessel while on patrol in the Pacific Ocean off the coast of San Francisco on 7 March 2013. (Justin Sullivan/Getty Images)

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“Over the last five to 10 years, there’s been growing awareness and understanding that IUU fishing is not just a fisheries conservation and economic issue, but a global food security, sustainability, and national security issue,” Commander James Binniker, chief of the Fisheries Enforcement Division in the US Coast Guard’s (USCG’s) Office of Law Enforcement Policy, told *Janes* in June. This awareness is increasing the international desire to find what he referred to as the ‘dark targets’ at sea. “Bad actors have a huge stage in a lot of shadows,” Cdr Binniker continued. “We’re really invigorating our efforts to shine the light [on those dark targets].”

Perceptions of IUU fishing as a conservation and management issue mandated a deterrent posture based on a ‘cop-on-the-beat’ presence alongside a regional fisheries management organisation (RFMO), said Cdr Binniker. “We’re recognising now that IUU bad actors are very co-ordinated and advanced in many ways, and we need to match that.”

Information sharing

Collective national and international approaches seek to address the risk at sea and increase understanding of its effect. Co-operating to share information and deliver at-sea enforcement is central to dealing with this impact. De Rivaz told *Janes*, “Fishing vessels follow the fish, and fish do not respect national borders. Moreover, when a vessel passes from the waters of one country to another, there are no checkpoints, so it is critical that states are able to pass information to each other on suspected IUU vessels.”

“It’s a lack of information that has created the shadows for IUU bad actors to operate in,” said Cdr Binniker. “There’s a growing understanding that to combat IUU fishing is not simply more ships at sea doing more boardings, but illuminating the predatory behaviour and irresponsible flag states, and identifying the bad actors and sharing information about them.”

Information relevant to tackling IUU fishing effectively comes from two main types of source. First, information is supplied by the fishing community itself – fishing vessels, shipping companies, beneficial owners, flag states, and port authorities, alongside data gathered via automatic identification system (AIS) or vessel monitoring system (VMS) networks – to demonstrate that vessels are acting in compliance with regional laws and processes. Second, information is shared among government maritime security organisations, commercial actors, and stakeholders such as RFMOs to monitor and deal with vessels demonstrating non-compliance.

Transnational threat and response

IUU fishing threats cross organisational borders at a national level and territorial borders at an international level. Therefore, a transnational threat requires a transnational response. “IUU fishing is often highly organised and linked to other threats,” said de Rivaz. “As such, maritime security agencies have an important part to play in dealing with the threat.”

Such is the transnational nature of IUU fishing and its links to criminality in various regions that Interpol established a Fisheries Crime Unit, which in turn runs the Interpol Global Fisheries Enforcement programme. Professor Sam Bateman, an honorary professorial fellow at the University of Wollongong’s Australian National Centre for Ocean Resources and Security (ANCORS) and a retired Royal Australian Navy (RAN) commodore, told *Janes* in April that the programme “contributes broadly to higher awareness of crime challenges in the maritime domain, as well as providing subject matter expertise to the maritime security community”.

The increasing number of cross-agency maritime security organisations emerging globally demonstrates a growing understanding of the need to co-operate to address national and international maritime security threats. These organisations act as hubs around which national- and international-level information sharing occurs, with the objective of improving maritime domain awareness (MDA), including to tackle IUU fishing. For the United States, for example, although the National Maritime Intelligence-Integration Office is its cross-agency co-operation hub, its major at-sea asset for countering IUU fishing is the USCG.

Pakistan established the Joint Maritime Information and Coordination Centre (JMICC) in 2012 to provide a co-ordinated response to IUU fishing and wider risks. A Pakistan Navy spokesperson told *Janes* in April, “Contributing factors include unregistered fishing boats, dual-registered boats, non-availability of tracking systems on fishing vessels, and insufficient law enforcement relating to the vast expanse of our EEZ.” The spokesperson added, “The lack of information-sharing on IUU activities amongst regional countries makes the task of tackling this [threat] very demanding and cumbersome.”

“The central aim of the JMICC is to maintain MDA and co-ordinate [the] response against illicit activities within Pakistan’s area of responsibility,” the navy spokesperson continued. As a “hub of maritime information”, with links to other national and international agencies, the JMICC “collects,

fuses, analyses, and disseminates actionable information to concerned agencies, enabling them to ensure safe and effective use of the maritime domain”.

Australia’s Maritime Border Command (MBC), the country’s lead civil maritime security agency and an evolution of previous organisations, was renamed in 2015 alongside the establishment of the Australian Border Force (ABF). The MBC also provides a cross-government structure that facilitates national and international co-operation. Australia’s maritime interests span the Antarctic, Indian, Pacific, and Southern oceans, with its sovereign responsibilities including countering narcotics and people smuggling as well as maritime terrorism, protecting offshore territories and critical national infrastructure, and delivering law enforcement, including environment and fisheries protection.



A member of the Australian Fisheries Management Authority (AFMA) unloads four truckloads of protected giant clams from two Vietnamese fishing vessels near Darwin in the Northern Territory on 4 April 2014. The clams were caught illegally in Australian waters. (Glenn Campbell/The Sydney Morning Herald/Fairfax Media via Getty Images)

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MBC operations are enabled by support from the ABF, Australian Defence Force (ADF), Australian Fisheries Management Authority, and other government agencies. Rear Admiral Lee Goddard, MBC commander and a two-star RAN officer, told *Janes* in June that Australia’s 2013 Maritime Powers Act, legislation enabling Australia to combine its civil and military enforcement functions in addressing maritime security threats, is another crucial aspect to enabling MBC operations. The MBC commander can designate ABF, ADF, or police units for at-sea law enforcement, including fisheries protection.

The MBC works with the international community on IUU fishing, particularly in the Southwest Pacific and waters such as the Timor Sea and Torres Strait. For Australia, illegal fishing by foreign vessels in these waters is a persistent threat. However, according to Rear Adm Goddard, close co-operation, including capacity building, has resulted in “a significant decrease” in activity. Compared with hundreds of vessels being apprehended annually only a decade ago, he added, “For the 2019–20 financial year to date there have only been four illegal foreign fishing vessels apprehended in Australia’s maritime domain.”

Such collective efforts and effects are critical for Australia and its neighbours. “We have many countries in the region who are very heavily dependent for their economy on fisheries”, Rear Adm Goddard told *Janes* . In working with partners, the MBC seeks “to ensure first of all they are able to most effectively protect their own fishing interests, but also so it doesn’t put pressure on Australia’s fishing interests”, he added.

“Most of Australia’s threats from a maritime perspective probably originate in areas where fishing stocks are under pressure”, such as the Andaman Sea and Bay of Bengal, Rear Adm Goddard said. “Out of those areas come other threats to Australia such as illegal fishing, illegal migration, and border-controlled drugs. You can see a nexus between pressure on sustaining economies and other crimes at sea.” He added, “If we work on fisheries and get that right with certain countries, we find it actually helps with [the] other issues.”



Australian Fisheries Management Authority (AFMA) watch two Vietnamese fishing vessels burning near Darwin in the Northern Territory after the owners were caught fishing illegally for giant clams in Australian waters on 4 April 2014. (Glenn Campbell/The Sydney Morning Herald/Fairfax Media via Getty Images)

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Co-operate to mitigate

Although information sharing and wider co-operation are demonstrably important in mitigating IUU fishing, obstacles remain. De Rivaz told *Janes* that these include siloed national organisations and insufficient international information sharing and surveillance technology co-operation. The RUSI report noted other national obstacles, including overlapping mandates between departments and positioning cross-department agencies appropriately within a government structure.

Tony Long, chief executive officer of Global Fishing Watch (a non-governmental organisation focused on promoting ocean sustainability), pointed to wider obstacles. First, he told *Janes* in May, “Governments tend not to see the oceans as a space that demands interdepartmental co-operation and information exchange, as well as intergovernmental. Fishing is one area, piracy another, seabed mining another, and so on.” Although noting that government maritime security agencies understand the need to share information, Long said that, given that the oceans have not always been seen as a space requiring co-ordination, information-sharing approaches have often been adopted slowly.

Second, he said, “Some information is public; some information is proprietary. Information about where the vessel is operating and what it’s catching tends to sit only with the ownership of the vessel, the master of the vessel, the coastal state, and – most importantly – the flag state.”

Third, “Because the data’s proprietary, [people] set up electronic walls, so there’s no real flow of information: nobody’s got an overview,” said Long. For cross-government agencies, Long said, “The bottom line is they need to continue to integrate and share information to the greatest degree possible but reduce their burden by making as much of it as public as possible so they don’t have to invest time and effort in inefficient sharing mechanisms.”

Information sharing can be sensitive for agencies. “You’ve got to be careful of over-classifying [the information],” said Rear Adm Goddard. “A lot of information is either unclassified or is volunteered by vessels, so it’s easy to be overly cautious with sharing.”

Cdr Binniker added, “If we use some classified sensor to paint the best picture possible of what’s going on in a partner’s waters, but then can’t share it with them because it’s classified, it’s useless. So, we’re really trying to focus on using open source information.” Nonetheless, progress is being made, with the benefits of information sharing and wider co-operation recognised.



Australian Border Force Cutter Ocean Shield arrives at port in the Indian city of Chennai on 18 May 2017. The boat participated in a joint exercise with the Indian Coast Guard and the Sri Lankan Navy to co-ordinate maritime operations against illegal fishing and smuggling in the region. (Arun Sankar/AFP via Getty Images)

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Pakistan’s JMICC is expanding its national and multinational connections, with numbers at the time of writing standing at 48 national agencies and six international organisations, respectively. “The JMICC plays a pivotal role in co-ordinating responses to combat IUU fishing,” the navy spokesperson said. “It collects and collates information which is [then] shared with relevant stakeholders.” Information is received through various means, including a dedicated smart phone application, phone, fax, text messages, and emails. Upon receiving actionable incident reports, watch teams collate the information and verify it with relevant stakeholders.

Based on authentication of the information, a situation report is generated and, if required, information on contacts of interest is shared with relevant stakeholders among Pakistan’s law enforcement agencies – including, for example, the Pakistan Maritime Security Agency (PMSA), which is mandated to conduct enforcement operations against IUU fishing vessels with the active support of the Pakistan Navy. “On receipt of any actionable information related to IUU fishing activity, the JMICC relays it to law enforcement agencies, which deploy air- and sea-borne assets to the area,” the navy spokesperson said.

Another stakeholder is the Coastal Security and Harbour Defence Force, a network of security stations established in 2015 and equipped with radars, electro-optical sensors, and AIS nodes. Co-ordinating with the JMICC, the force provides rapid response capacity to enhance coastal vigilance

and threat response.

The JMICC is planning to introduce an indigenously developed Joint Maritime Information Sharing (JMIS) software package. The customised package will enable vessel tracking based on AIS, information sharing over secure internet protocols, and the use of operational tools such as maps, chat functions, video calls, and encrypted email.

Australia's need to co-operate with international partners is driven by geostrategic circumstance. "It's very important that, when you're dealing with threats to Australia you want to deal with them at source, including fisheries," Rear Adm Goddard told *Janes*. "Our first layer of defence is our global and regional partnerships."

Countering IUU fishing is "a team sport", Rear Adm Goddard continued. "Australia will have part of the information and often one of our partners will have another part." Sharing information also helps build trust. Moreover, sharing information so that each stakeholder has all the information available, including sources, augments the potential operational output at sea and reinforces the likelihood of effective prosecution. Enhancing effectiveness at sea and in court increases the overall deterrent impact on IUU fishing, the admiral said.

Balancing presence and intelligence

No country or collection of countries has sufficient surveillance and enforcement assets to generate the information and presence required to provide all-encompassing coverage to counter IUU fishing. No matter how effective the cross-agency and multinational information sharing, at-sea action is still required. Balancing information sharing and enforcement to generate an intelligence-led presence and targeting is therefore critical.

Cdr Binniker told *Janes* that information sharing "is something we are recognising as a growth area for us ... There are limitations to what we can do on the enforcement side, but there is a lot we can do to elevate MDA around the world as to what's going on, who the bad actors are, what their activities are, and then trying to [respond] collectively".

He explained, "What we're hoping to do is grow the way we think about information sharing – not just of an operational nature to affect a boarding, but more to having strategic effect. If we can use the systems available ... to raise awareness in a coastal state's EEZ so they know who's operating there, that's the type of information sharing that would be helpful, and we need to make it consistent."

Cdr Binniker added, "There's a lot of information being generated. I feel what's lacking is a co-ordinated effort to look at what we do with that information and how we push it out. If we see some suspicious behaviour happening in one country's waters, do we have a mechanism and a means to push that information to them?"

Rear Adm Goddard noted various national, bilateral, and multilateral mechanisms established to facilitate information sharing and co-operative activity in Australia's regions of interest. Australia has partnerships in place with six such organisations, including national fusion centres and RFMOs such as the Solomon Islands-based Pacific Islands Forum Fisheries Agency (FFA).



A patrol boat crew from the Federated States of Micronesia operates in the Pacific Ocean in late 2019. Australia is providing 21 new Guardian -class patrol boats to 12 Pacific Island countries under its Pacific Maritime Security Program to build capacity. (Photo courtesy FFA/released)

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“Australia will share information, particularly if we think there is illegal fishing, and we often receive information back,” said the admiral. “Then we assist in cueing countries to potential illegal fishing. So, the information is actionable and immediate.”

To build capacity, Australia is delivering 21 new *Guardian* -class patrol boats to 12 Pacific Island countries (PICs) plus Timor Leste under its Pacific Maritime Security Program, leasing flying hours to several countries, and promoting information sharing. Consequently, the admiral added, “These countries can actually protect their sovereignty themselves.”

The next steps, Rear Adm Goddard said, could be to expand information sharing to enhance MDA, perhaps by developing a common operating picture, and for the PIC partners to improve prosecution capability through strengthening national legislative arrangements. He also highlighted the potential benefits of these countries developing their own bilateral and multinational relations; for example, to enable cross-border ‘hot pursuit’ of suspect vessels and to cover gaps between EEZs. Overall, he said, the issue is “how we actually build up capacity and experience” within such partners.

Narrative change

To enhance the international ability to counter IUU fishing, there is the question of whether the narrative around it needs to change. “The narrative change is a shift towards transparency, co-operation, and information sharing, and a push towards key legislations like the Port State Measures Agreement [formally the Agreement on Port State Measures], which is cost effective and easy because it centres on the ports,” said Long. “It’s about placing the burden on the fishermen to prove compliance rather than on the authorities to prove non-compliance, which is far more difficult [and] expensive.”

He added, “It’s time for a paradigm shift from traditional enforcement methods to a compliance-based system where vessels that are seen to be compliant are the ones that can land their fish and the ones that aren’t compliant can’t.” Under Port State Measures Agreement legislation, “Vessels suspected of illegal activity can be allowed into port for inspection or they can simply be turned away”, he said. “That’s the choke point: every fish has to come in through a port.”



A boarding team from the USCGC Sequoia (WLB 215) approaches a Taiwanese fishing vessel in the Pacific Ocean on 13 March 2020. The crew undertook a fisheries patrol as part of joint efforts for Operation 'Rai Balang' under the Forum Fisheries Agency. (US Coast Guard photo by USCGC Sequoia/released)

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Outlook

Although a global problem, the nature of the IUU fishing threat varies by region. “Many factors affect the types of IUU fishing that occur in different regions,” de Rivaz said. “However, two key factors are: first, the type of fishing that goes on in a particular region; and second, the capacity of coastal states in that region to conduct effective monitoring, control, and surveillance (MCS) of their waters.”

“In areas where there are important species offshore, but coastal states have limited MCS capacity, the kind of IUU fishing you are likely to see will be illegal fishing by larger foreign-flagged vessels that cross into the waters of these coastal states to steal fish, and then transship them [at sea] to hide their origins,” de Rivaz explained, citing the Western Indian Ocean and Southwest Atlantic as examples.

“In areas where there are high-value species offshore yet the coastal states have relatively strong MCS capacity, you will be more likely to see unreported fishing, with vessels under-reporting their catch to circumvent quotas,” de Rivaz said. European and North American waters are more likely to see such activity, he added. “In areas where there are high-value species close to shore and coastal states have weak MCS capacity, you will be more likely to see illegal fishing by small-scale fishers.”

Prof Bateman said, “Each of the three component parts poses different considerations and can affect different regions in different ways.” In Antarctica, climate change may increase IUU fishing risk, as increased access to more resources becomes possible and ocean temperature and salinity changes affect fish types and fishing patterns, he said. “Consequently, there will be a prospective increase in IUU fishing, including the presence of more extra-regional fishing vessels.” This risk may increase across the resource-rich Southern Ocean region, he added.

Extra-regional actors are present in large-scale IUU fishing in some African waters, the RUSI report noted. Off the coast of East Africa, illegal fishing by such actors was widely perceived as a primary cause of Somali piracy. Off the coast of West Africa, the combination of high-value fisheries and limited local enforcement capacity provides space for foreign fishing fleets to encroach into EEZs, especially in the Gulf of Guinea.

In Southeast Asia, the RUSI report noted that extra-regional ‘fleets’ are present as well as home-grown illegal fleets. Although EEZs are “a key focus for large-scale IUU operations”, the RUSI report stated that IUU fishing took place inside the 12 n mile territorial waters of all countries covered in its report – Indonesia, South Africa, Tanzania, Thailand, and Vietnam.

In the Pacific Islands, “The major problem is unreported fishing by licensed fishing vessels through measures such as not reporting full catches, transferring catch at sea, or switching off VMS and not fishing in the area where they reportedly are,” said Prof Bateman. Illegal and unregulated fishing is less significant because of fisheries management efforts by RFMOs such as the FFA and the Western and Central Pacific Fisheries Commission, alongside substantial surveillance and enforcement capacity-building assistance from partners including Australia, France, Japan, New Zealand, and the United States, said Prof Bateman. “What is happening with the PICs is a role model for the rest of the world for international/regional co-operation and information sharing.”

Unique role for US Coast Guard

The USCG plays a unique role in international counter-IUU fishing efforts. Cdr Binniker told *Janes*, “The USCG is more like the rest of the world’s navies than our own navy is.” Consequently, in regional maritime security scenarios such as IUU fishing, “We bring a great deal of credibility. We bring the ability to partner in ways that other military forces cannot, [such as] our ability to get in close and help build partner capacity and co-operation.” Cdr Binniker explained that USCG at-sea engagement with partners was shaped by US government agreements, especially with RFMOs – for example, enabling USCG to board and inspect non-US-flagged vessels.

Following a February 2020 directive from USCG Commandant of the Coast Guard Admiral Karl Schultz, the service is drafting an IUU fishing ‘strategic outlook’ to craft a long-term approach. Priorities include: championing effective at-sea enforcement, with the USCG engaging in and leading partnership efforts to detect, deter, and disrupt IUU fishing, including being present and helping partners build MDA and wider capacity; finding new partners in areas where the USCG is already present and where it is not; and advancing intelligence-driven operations – for example, developing co-ordinated counter-IUU operations models that mirror those used in international counter-narcotics operations. Within the overall emphasis on encouraging stakeholder engagement, “information sharing is absolutely one area that we are focusing on”, said Cdr Binniker.

He added that larger countries could also play a key role in improving international counter-IUU fishing capacity. For more than 25 years, the USCG has supported the ‘North Pacific Guard’ maritime security operation, with USCG vessels previously embarking Chinese law enforcement detachments in a combined approach targeting illegal high-seas drift-net fishing.

Arrangements with China are in the process of being renegotiated, and the USCG is hoping that China will provide a patrol ship – effectively doubling its presence, alongside the single USCG annual deployment. Canada, Russia, and South Korea support the operation with information or aircraft. “If we can grow international co-operation and commitment of resources and get a Chinese vessel out there patrolling and a Canadian vessel out there patrolling and a Russian vessel to come beyond its own waters, we would be really putting down an effective law enforcement presence against that threat,” Cdr Binniker said.

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Dr Lee Willett is an independent writer and analyst on international maritime security matters.

On the web

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