

COMBATING ILLEGAL, UNREPORTED, AND UNREGULATED (IUU) FISHING IN THE ATLANTIC COURSE INSIGHTS AND SOLUTIONS

PREPARED BY

Juliet Afrah Obeng, Research Manager *Gulf of Guinea Maritime Institute*

&

Francisco de Arantes e Oliveira, Advisor for External Relations and Cooperation *Atlantic Centre*

DESIGN BY

Enoch Dzane Nikoi Graphic Design and Marketing Coordinator Gulf of Guinea Maritime Institute

INDEX

FOREWORD			
BACK	GROUND		
FROM CRISIS TO COOPERATION: A GLOBAL RESPONSE TO IUU FISHING IN THE ATLANTIC			
TRACKING THE CATCH: LEVERAGING TECHNOLOGIES TO COMBAT IUU FISHING IN THE ATLANTIC OCEAN			
a.	EU full digital traceability along the supply chain8		
b. moi	Vessel Monitoring Systems, Automatic identification systems, and Remote electronic nitoring8		
c.	Automatic Identification Systems9		
d.	Remote Electronic Monitoring9		
BUILDING A BLUE WALL: INTERNATIONAL COOPERATION TO SAFEGUARD ATLANTIC FISHERIES 10			
CASE STUDY: THE YAOUNDÉ ARCHITECTURE IN COMBATING IUU FISHING11			
The	Yaoundé Code of Conduct11		
Leg	al Instruments Currently in Place for Combating IUU Fishing Across the Atlantic		
HIGHL ATLAN	IGHTS OF IN-COUNTRY LEGISLATIVE INSTRUMENTS FOR COMBATING IUU FISH ACROSS THE ITIC		
DAILY COLLECTION OF IDEAS			
RECOMMENDATIONS ARISING FROM THE COURSE FOR COMBATING IUU FISHING16			

FOREWORD

Illegal, Unreported and Unregulated Fishing (IUU Fishing) concerns and connects us all, posing significant global maritime security threats that challenge the whole Atlantic community. As it is known, the impacts and scale of the problem vary across different Atlantic regions and countries, highlighting its multidisciplinary nature. This towers IUU Fishing as significantly relevant for economic activities, local ecosystems and the overall balance of our oceans and connected Atlantic communities.

Therefore, it becomes clear that this challenge must be addressed collectively. It requires integrating knowledge from the North and the South, linking practices from East to West, and combining practical experience with academic insights. Recognizing the importance of this issue and aiming to strengthen our Atlantic Community, it is understandable that the Atlantic Centre and its partners have brought this issue to the stage.

We know for a fact that the fight against IUU fishing in the Atlantic also requires a strong Whole of Society approach and, as a consequence, the Atlantic Centre alongside its partners organized the IV Maritime Security Course (IV MSC) on the topic of "IUU Fishing in the Atlantic" at Airbase n4 on the Terceira Island, Azores.

Between the 26th to 31st of May, the Atlantic community gathered in the heart of the Atlantic to discuss, debate and ultimately discover IUU Fishing under a comprehensive, multidisciplinary approach. The IV MSC brought together military officers, policymakers, experts and students from all corners of the Atlantic basin to share their regional perspectives on IUU Fishing.

Over five days of vivid discussions, with panels from support technologies in IUU Fishing to regional insights of various countries, sufficient testimonies and expertise were gathered to understand IUU Fishing as an ample threat whose complexities ought to be harmonized on a national, regional, and international level, while also harnessing the advantages of new technologies (like satellite monitoring or data-sharing platforms). Moreover, it was understood that the fight against IUU fishing in the Atlantic also requires strong enforcement mechanisms. By establishing consistent regulations and closing legal loopholes, nations can perhaps ensure the sustainable management of fish stocks and protect the economic wellbeing of coastal communities.

Thus, this report, produced by the Gulf of Guinea Maritime Institute in collaboration with the Atlantic Centre, encapsulates the main ideas shared during the five days of meaningful and engaging debates. It summarizes the current state of the art and provides a path forward, highlighting best practices and priorities for fighting IUU fishing in the Atlantic as was discussed throughout the Course.

With this Report, the Atlantic Centre intends to further contribute to knowledge sharing and, moving forward, to deliver on its mission of building an engaged and well-informed Atlantic Community of Interests aimed at building a safer and prosperous Atlantic for all of us.

Rear-Admiral Nuno de Noronha Bragança Atlantic Centre Coordinator

BACKGROUND

The Atlantic Ocean, which is the second largest oceanic system in the world, plays a crucial role in the Earth's ecosystem and significantly influences economic, social, and cultural development.

Its extensive and productive fisheries represent one-fifth of the world's total catch. Similar to other oceans battling the need to meet the grappling high demand for fisheries resources, the resurgence of weak governance, insufficient monitoring, corruption, lack of transparency, low political interest, and market distortions add to the Atlantic Ocean's required conditions to be a global hotspot for illegal, unreported, and unregulated fishing (IUU Fishing). This includes fishing without a valid license, in a closed area, beyond a closed depth or during a closed season, or by using prohibited gear, as well as the failure to fulfil reporting obligations, falsifying its identity, or obstructing the work of inspectors.¹

This illegal activity significantly threatens marine biodiversity, economic stability, and food security. Moreover, IUU fishing threatens sustainable fishing, slows the rebuilding of overfished populations, and adversely affects the livelihoods of law-abiding fishers and respective coastal communities who depend on a healthy ocean.²

These entrenchments have opened a great global gap parading the Atlantic Ocean, affecting the economic communities of coastal states. This necessitated the relevance of defining the Atlantic as a global common where states from different continents share important strategic interests highlighting the nexus of maritime security, food security, and national security. Report suggests, about 20% of illegally caught fish worldwide comes from waters near the Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal, and Sierra Leone, underlining the necessity of enhanced surveillance and international cooperation in these regions. For instance, the Food and Agriculture Organization of the United Nations (FAO), estimates that IUU Fishing amounts to between 10 to 23.5 billion USD annually, representing 11–26 million tonnes of fish, of which the value never reaches the communities who need it most.

The Atlantic coastline thus continues to face constraints and economic losses which will affect the highly dependent local artisanal fishing industry, wrecking in the process, small businesses, and the entire livelihood of the coastal fishing industry.

In Europe, IUU fishing is a menace even within marine protected zones. The use of the 'flag of convenience' by illicit fishing vessels has become a topical subject across the diverse stakeholders within the Atlantic Ocean.³ Nowadays, it is very difficult to estimate the accurate total catch from pirate fishing. The painstaking process of collating maritime data from various countries, fisheries management agencies, experts' estimates, trade figures, and recommendations from individual researchers to arrive at an estimated figure for the total IUU catch estimate is bound to be unreliable because of the open black market.

 https://www.fao.org/iuu-fishing/background/what-is-iuu-fishing/en/
 ² Chapsos, I, Koning, J & Noortmann, M 2019, 'Involving Local Fishing Communities in Policy Making: Addressing Illegal Fishing in Indonesia' Marine Policy, vol. 109, 103708.
 ³ https://ejfoundation.org/resources/downloads/EJF-report-FoC-flags-of-convenience-2020.pdf This report provides an overview of the interventions on IUU fishing being implemented in the Atlantic regions, as presented at the IV Maritime Security Course (IV MSC) organized by the Atlantic Centre and National Defence Institute of Portugal from May 26–31, 2024.

The course provided a platform to evaluate how maritime security in the region is affected by IUU fishing and to understand the extent this issue is studied and felt by both Atlantic and non-Atlantic actors. This report also highlights best practices while also setting priorities through a multidisciplinary approach: technologies, research, and capacity-building activities to combat IUU fishing within the region.



Figure 1 – The IV MSC Footprint. Countries present at the IV MSC



FROM CRISIS TO COOPERATION: A GLOBAL RESPONSE TO IUU FISHING IN THE ATLANTIC

During the Maritime Security Course on IUU Fishing, several mechanisms aimed at tackling IUU Fishing were presented. Marine Protected Areas (MPAs) are a key example of such mechanism. MPAs initiative is tasked at promoting conservation and sustainable use of the

Azorean Sea by also leveraging on new technologies such as monitoring through VMS (Vessel Monitoring System) and AIS (Automatic Identification System), this initiative envisages to restructure the fisheries, implement new policies which will ultimately benefit the blue economy.

Furthermore, robust maritime borders are vital in protecting local communities and marine ecosystems. Most Atlantic regions have developed the capacity to identify and discourage IUU activity through harmonized national, regional and international laws and supporting technologies, such as satellite monitoring and data-sharing platforms.

The significance of cooperative enforcement and regional collaboration is emphasized by perspectives on regional governance, especially those presented by institutions such as the European Union (EU) in its maritime security response <u>programs</u> in the Gulf of Guinea under the <u>Coordinated Maritime Presences (CMP) tool</u> or through the <u>Atlantic Centre in its IUU</u> <u>Fishing Research Project</u>. The importance in tackling IUU Fishing lies within a "Whole of Society" approach and institutional collaboration. An example of this is the <u>Atlantic Security</u> <u>Award</u>, which is an initiative by the Luso-American Development Foundation (FLAD) alongside the Atlantic Centre and the IDN, that supports Researchers to produce innovative and quality scientific research on Atlantic affairs.

Yet not only academia offers a way ahead in the fight against IUU fishing. Countries armed forces, Coast Guards and other security Agencies' collaborative security responses are crucial for protecting marine resources and promoting sustainable development that are required to address IUU fishing activities, turning the crisis into cooperation for the betterment of marine ecosystems and coastal communities.

Additionally, the fish processing industry, alongside aquaculture development, play an essential role in combating IUU fishing. The case of Morocco's <u>Ministry of Fisheries</u> highlights that through aquaculture, traceability standards, including Codex Alimentarius and ISO standards promote sustainable practices and reduce economic incentives for illegal activities.

On the broader scale, the fight against IUU fishing requires, as mentioned, a multi-faceted approach involving international regulations, advanced technologies, and cooperation among nations. IUU fishing is tackled through international regulations like UNCLOS, Port State Measures (PSMA), regional fisheries management organizations (RFMOs), and the EU's IUU Regulation, supported by technologies such as VMS, AIS, satellite surveillance, ERM, and blockchain traceability, to mitigate its economic, environmental, and market impacts, ensuring sustainable fisheries, protecting marine biodiversity, and promoting fair market conditions.



TRACKING THE CATCH: LEVERAGING TECHNOLOGIES TO COMBAT IUU FISHING IN THE ATLANTIC OCEAN.

"From the nets to the plate", technology is used to enhance our capacity to recognize fraudulent activity, determine whether sustainable practices are being applied, and assist in the enforcement of regulations meant to promote more supply chain transparency.

In order to tackle overfishing and IUU fishing occurrence on the Atlantic Ocean, access restrictions (fishing licences or authorizations), technical controls (when, how, and where fishing is possible), and constraints on fishing effort (that is, the amount of time a fishing vessel of a specific engine power spends at sea) are deployed as primary fisheries management measures.

Several challenges associated with enforcement of these measures have necessitated the development of capacities in States for the monitoring, control, and surveillance (MCS) of fisheries activities. A plethora of new technologies are being created, and a number of existing ones have resurfaced to support nations to improve their capacity to observe and manage fisheries. The highlights from the IV MSC discussions includes:

a. EU full digital traceability along the supply chain

The EU countries regulate how products enter the market and flow through the supply chain through the introduction of traceability technologies, and economically discourage IUU fishing. The system is mandatory for fresh, frozen fish and aquaculture products. Seafood products are labelled using bar

codes and digital systems as well as block chain technology and standardization to inform consumers of the origin (who-caught the product, what-the product is, when it was caught, where and how it was caught) of their products. The system also makes use of the EU catch certificate scheme for imports and the key data elements requirements by fishing vessels to ensure sustainable extraction at sea.

b. Vessel Monitoring Systems

Vessel Monitoring Systems (VMS) play a critical role in combating IUU fishing. These are satellite-based systems that track the location and movements of fishing vessels within a country's Exclusive Economic Zone (EEZ). VMS unit's onboard vessels transmit regular position reports to fisheries authorities, including details like vessel ID, time, date, and location. This

allows authorities to monitor a vessel's activity and identify suspicious behavior, like fishing in unauthorized areas or turning off the transmitter. Across the Atlantic Ocean, it is mandated by governments and RFMOs to ensure compliance with fishing regulations.

However, VMSs most often use private technology, which is costly and restricts access to information to states and RMFOs. As an example, the Portuguese Fisheries Monitoring Centre (FMC-PT) has been using the MONICAP a VMS tool together with GPS, satellite, and vessel positioning logbook for monitoring illicit activities at sea. Another example is the Fisheries Committee for the West Central Gulf of Guinea (FCWC) hosts the regional VSM Centre for the Gulf of Guinea, processing and analyzing vessel tracking data for member states to enhance their capacity. The AMS Vessel Monitoring System is widely used in the Gulf of Guinea.







c. Automatic Identification Systems

Automatic Identification Systems (AIS) are designed to prevent collisions at sea, AIS use VHF radio signals to broadcast a vessel's identification, position, course, and speed. The data from AIS is publicly available, which allows for wider monitoring by other vessels, coastal authorities, and even NGOs. This helps identify uncooperative vessels that might not have VMS or have switched it off.



AIS data is recorded and maintained by the Portuguese Coastal Vessel Traffic Service (VTS) control centre (CCTMC). The Vessel Traffic Service division has completed several collision risk studies using AIS data. In addition, the Marine Biodiversity Observation Network (MBON) is building a community of practice to characterize how marine biodiversity is changing and how this affects us. MBON has established a VTS Network enabling observation coverage into sensitive areas. By using satellite-based earth observations, MBON can rapidly and efficiently monitor areas without the need for physical presence.

MBON leverages cooperation among institutions to share information and ensure data transparency integrating the network into operational products accessible to other organizations critical for observing marine protected areas (MPAs) in the Atlantic region.

d. Remote Electronic Monitoring



Remote Electronic Monitoring (REM) integrates VMS with video cameras, sensors on fishing gear (winches, nets, etc.), and electronic catch reporting. Video footage allows authorities to monitor fishing activities directly, and sensor data can reveal information about catch volume and composition. This helps to verify catch declarations and detect unreported fishing or discarding of unwanted bycatch.

An example is the MARItime Security Service (MARISS) which is an ongoing European initiative, supported by the European Space Agency (ESA) that offers integrated monitoring maritime security services including vessel detection in open seas and vessel tracking along sea borders. MARISS integrates Near Real Time satellite Remote Sensing imagery with VMS, AIS, and LRIT vessel tracking data to locate ships that are not reporting their position.

The Armed forces also contribute, like the Portuguese Airbase unit whose complimentary services such as Intelligence, Surveillance and Reconnaissance, anti-submarine warfare (ASW), identification, surveillance and control of fishing activities, provide much-needed collaboration in the fight against organized crime and IUU Fishing. The Border and Coastal Control Unit of the Portuguese Gendarme also provides a strategic integrated surveillance command and control using Air systems (Manned and Unmanned) to support the fight against IUU in Europe.

In the Gulf of Guinea, the Operational Centre (MOC) of the Maritime Prefecture of Guinea has been using various surveillance systems, such as SEAVISION and YARIS, to combat IUU fishing. The YARIS capabilities range from ship detection, vessel tracking, vessel movement analysis and sharing of information and intelligence with the National Fisheries Surveillance and policing centre (CNSP) and Tamara Semaphore. This provides an efficient and real-time monitoring spectrum for officials against IUU fishing. Combining VMS, AIS, and REM provides a comprehensive monitoring framework, enhancing the ability to detect and deter IUU fishing.

BUILDING A BLUE WALL: INTERNATIONAL COOPERATION TO SAFEGUARD ATLANTIC FISHERIES

The advantage of technology is so significant that without a strategic, well-informed and engaging community that can use it, its relevance becomes redundant. The awareness creation about IUU fishing in the Atlantic Ocean is vital for fostering a collective response to this pervasive issue. Portugal is developing efforts as a coastal nation through the Atlantic Centre but also its several sectorial ministries and agencies like the Directorate-General for Natural Resources, Safety and Maritime Services, the Navy, Air Force and National Guard (GNR).

This institution has taken significant steps towards promoting pan-Atlantic cooperation among Atlantic coastal nations to foster robust partnerships and create strategies that enhance information sharing. This cooperation also promotes transnational efforts to combat common threats like piracy and drug trafficking while advocating for integrated solutions to address the military, environmental, economic, and social aspects of Atlantic security.

In Africa for instance, particularly in the Gulf of Guinea, the Fisheries Committee for the West Central Gulf of Guinea (FCWC) has been addressing regional cooperation in the Atlantic region, proving to be a significant regional institution. The FCWC identifies weak national governance and the proliferation of distant water fleets as the main drivers of illegal, IUU Fishing in the Gulf of Guinea. Through the PESCAO project, FCWC has developed a framework for regional fisheries priorities, facilitated cooperation, and built the capacities of national and regional monitoring, control, and surveillance (MCS) authorities to deter IUU fishing. They also support the coordination of shared approaches to fisheries management. The region has established the Regional MCS Centre (RMCSC) for joint regional surveillance operations. According to the Executive Secretary of COREP, strengthening maritime security through an integrated maritime strategy, modernizing MCS systems, developing a sustainable blue economy, and enhancing cooperation and coordination could significantly reduce IUU fishing in the Gulf of Guinea.

In the Caribbean, <u>Caribbean Regional Fisheries Mechanism</u>, a specialized CARICOM institution, plays a crucial role in regional cooperation, policy formulation, and the implementation of advanced technologies and legal frameworks to combat IUU fishing and ensure sustainable fisheries management in the Caribbean. It develops regional protocols under the Caribbean Community Common Fisheries Policy and Implements initiatives to combat IUU fishing and fisheries crime, including the Blue Economy Project and Sargassum Project.

CRFM also collaborates with <u>CARICOM IMPACS</u>. IMPACS works closely with the CRFM to coordinate regional efforts against IUU fishing. They facilitate cooperation among member states to develop and implement joint strategies and support member states in investigating and prosecuting IUU fishing cases. IMPACS also assists in gathering and sharing intelligence

on IUU fishing activities, enabling better coordination and response to threats that cross the group of twenty small island developing states that comprise this organization.

In parallel, from a "hard" security point of view, the North Atlantic Treaty Organization (NATO), has been actively involved in enhancing security and stability in the Atlantic region. To support situational awareness, decision-making, and information exchange with southern partners, NATO developed the <u>NATO Strategic Direction-South (NDS-S) Hub</u>. The NDS-S Hub works to understand regional dynamics and challenges from a local perspective. It acts as an enabler for identifying opportunities and supporting NATO's decision-makers while being a tool to address changing regional dynamics in the African continent, like the issue on IUU Fishing.

CASE STUDY: THE YAOUNDÉ ARCHITECTURE IN COMBATING IUU FISHING

The Yaoundé Code of Conduct

The Yaoundé Code of Conduct is a framework adopted to enhance maritime security and combat illegal activities, including illegal, unreported, and unregulated (IUU) fishing, in the Gulf of Guinea. It was adopted to facilitate cooperation among West and Central African countries in sharing information and coordinating efforts to address maritime threats. At the implementation level (interregional and regional level), the Yaoundé Architecture comprises the Interregional Coordination Centre (ICC), the coordination and information-sharing structure which connects the Regional Maritime Security Centre for Central Africa (CRESMAC) and the Regional Maritime Security Centre for West Africa (CRESMAO).

The coastal space is divided into 5 operational maritime zones where activities are coordinated by five Maritime Multinational Coordination Centres (MMCC) as shown in Figure 1. The opportunities offered by Yaoundé's architecture are significant. It functions as a regional maritime security framework established through the Yaoundé Code of Conduct. This allows countries to share intelligence on suspected IUU fishing activities, including vessel movements and illegal practices. Member states can conduct broader surveillance and apprehend vessels engaged in IUU fishing more effectively by combining resources and expertise.

The architecture fosters the standardisation of laws and regulations regarding fisheries management across the region. This creates a more consistent approach to deterring and penalizing IUU fishing activities while also serving as a platform for dialogue and collaboration between different stakeholders involved in maritime security. This includes government agencies, regional fisheries bodies, and civil society organizations, allowing for a comprehensive approach to combating IUU fishing.

The IV Maritime Security Course discussion (panel 5) on "Security Responses to IUU Fishing", the Yaoundé Architecture Regional Information System (YARIS) was presented, showing its relevance as a tool to combat IUU fishing. YARIS fosters collaboration between countries bordering the Gulf of Guinea by promoting information exchange and joint operations. It strengthens regional partnerships, creating a united front against maritime threats. All national and regional operational units can conduct monitoring activities independently,

sharing information, and communicating in real-time with other units via the YARIS. As an example, the system allowed authorities from Guinea to identify and then inspect a vessel that entered its waters to fish without licence and during a biological rest period. This case was presented during the course, called the operation "Fahd Aleslam", the Operational Centre (MOC) of the Maritime Prefecture of Guinea observed on its various surveillance systems (**SEAVISON and YARIS**) the fishing vessel named "Fahd Aleslam" which was flying the Egyptian flag while crossing the southern boundary and engaging in fishing in the Guinean maritime area.

For this operation, it is important to highlight the role of the YARIS platform since it facilitated information sharing, and intelligence between the national fisheries surveillance and policing center (CNSP) and the Tamara semaphore. The platform played a vital role in enhancing communication, intelligence sharing, and evidence collection, which are essential for effective fisheries management and enforcement.



Maritime safety and security architecture in the Gulf of Guinea (Yaoundé Architecture)

Figure 2: The Yaoundé Architecture

Legal Instruments Currently in Place for Combating IUU Fishing Across the Atlantic

Across the Atlantic, various legal instruments at international, regional and national levels exist for sustainable use of marine resources. These instruments aim to promote sustainable fishing practices, enhance monitoring and enforcement, and ensure the conservation of marine resources.

A given example of this mechanisms was the International Plan of Action to Prevent, Deter, and Eliminate IUU Fishing (IPOA-IUU), which was the first (voluntary) international instrument, adopted in 2001. It encourages all States to use available measures (including coastal and port States, and market-related measures) in an integrated manner to prevent,

ensure that vessels flying its flag do not engage in IUU fishing activities. This includes implementing effective monitoring, control, and surveillance measures, enforcing compliance with international conservation and management measures, and taking appropriate action against vessels that violate these measures.

Also, the Agreement on Port State Measures (PSMA) is another (but legally binding) international instrument, adopted in 2009. Its objective is to prevent, deter, and eliminate IUU fishing by preventing vessels engaged in IUU fishing from using ports and landing their catches.

HIGHLIGHTS OF IN-COUNTRY LEGISLATIVE INSTRUMENTS FOR COMBATING IUU FISH ACROSS THE ATLANTIC

With the intention of gathering and sharing expertise across the Atlantic basin, naval officers from five countries shared their perspectives on the issues of IUU Fishing at Cameroon, Cabo Verde, Brazil, Colombia, and Argentina during the IV MSC. These testimonies were crucial for understanding the regional intricacies of this security issue in the Atlantic.

Cameroon



This country has fortified its maritime security with the enactment of Law No. 2022/017 of December 27, which focuses on the suppression of piracy, terrorism, and attacks against the security of maritime navigation and platforms. This comprehensive legislation provides a robust framework for countering IUU fishing. Under this law, if a ship involved in IUU fishing is intercepted, all relevant administrative bodies under port state authority or coastal state control are mandated to exercise their rights and enforce regulations. This interagency cooperation ensures that all facets of maritime security and resource management are addressed, creating a unified front against illegal fishing activities.

Colombia

Colombia has declared 34.5% of its maritime territory as a Marine Protected Area (MPA), a significant step towards marine conservation. This declaration is supported by a suite of regulatory instruments, including Decree 2256 of 1991, which regulates the general fishing statute permits for various types of fishing. Law 1851 of 2017 introduces stringent measures against illegal fishing and criminalizes illegal fishing activities within Colombian maritime territory. Additionally, Law 2111 of 2021 addresses crimes against natural resources and the environment, specifically targeting illegal fishing under Articles 328, 328A, and 328C of the Colombian Penal Code (C.P.). These measures collectively enhance Colombia's capacity to combat IUU fishing and protect its marine biodiversity.





Argentina

The Argentinian legal framework includes the Defence Act for surveillance and control, a National Action Plan to combat IUU fishing, and a Federal Fisheries Council whereas the Secretary of Fishing is responsible for sanctions and coordination with other agencies.

Law No. 26.386 (2008) strengthens the legal framework

for combating IUU fishing by increasing penalties for violations and enhancing monitoring and enforcement capabilities, while Law No. 27.564 (2020) also introduces stricter penalties, including higher fines and vessel confiscation, and enhances the powers of the Argentine Coast Guard and other enforcement agencies to monitor and intercept IUU fishing activities.

From the regional perspective of Argentina on IUU Fishing, it is worth to mention that the maritime scenario in the Southwest Atlantic involves multiple state and non-state actors with economic and geopolitical interests. Key fisheries zones include the Uruguayan Argentine Fisheries Zone, the EEZ, and areas beyond the EEZ. These actors are particularly coming from southwest Asia, namely Taiwan, South Korea and China.

While legal mechanisms do pose a deterrence effect on IUU Fishing in Argentina, the identified challenges persist, transhipment and trawling on the continental shelf beyond 200 nautical miles a significant one.

Brazil

Brazil's commitment to maritime security and environmental protection is exemplified through its membership in the South Atlantic Strategic Countries (ZOPACAS), an organization that promotes interagency cooperation and joint capacity building. Internally, Brazil coordinates its operations through the Maritime Operations and Blue Amazon Protection Command (COMPAAz), which employs state-of-the-art technologies, including drone deployment, to monitor and protect its vast maritime territory. This high-tech approach ensures effective surveillance and enforcement, deterring illegal fishing activities and safeguarding marine resources.



Cabo Verde



Cabo Verde has implemented a comprehensive approach to fisheries management, highlighted by the Annual Executive Plan for Fishery Resources Management (Resolution nº 93/2020) and the Regulation of Diving for Fishing for Commercial Purposes (Regulatory Decree nº 2/2021). The Vessel Monitoring System (VMS) Law (Decree-Law No. 32/2012) and the criminalization of illegal fishing under Article 206 of Law nº 117-IX-2021 further strengthen Cabo Verde's legal framework. Additionally, Cabo Verde's adherence to regional fisheries management organizations and ratification of bilateral and multilateral conventions underscores its commitment to international cooperation in marine conservation. The requirement for fish products to be unloaded in national ports and adherence to the Port State Measures Agreement ensures traceability and accountability in the fishing industry.

DAILY COLLECTION OF IDEAS

This chapter of the report encapsulates the primary "lessons learned" from each day, showcasing the lively debates and engagement that were key components of the course. At the end of each day, the Atlantic Centre organized the "Daily Collection of Ideas," moderated by Professor Doctor Assis Malaquias, the Academic Dean at the Africa Center for Strategic Studies.

The "Daily Collection of Ideas" was divided into four main areas where IUU Fishing could have lasting impacts: Governance; Security and Law Enforcement; Civil Society and Media; and Triangular Cooperation.

Under Triangular Cooperation, the focus was on the intersections and interactions between academia, the private sector, and security. In the Civil Society and Media area, participants explored ways to engage civil society more effectively on the issue of IUU Fishing.

For Governance, discussions centered on the importance of prioritizing IUU Fishing in international law and regional and international agreements. In the Security and Law Enforcement area, attendees debated how law enforcement agencies could best address IUU Fishing.

A	ILANTIC Daily Collec	ction of Ideas	
- CENTRE - 27-29 of May, 2024			
	Governance	(academia/private sector/security)	
	Compile & review international agreements regarding Maritime Security in the Atlantic Publicize intelligence produced by information agencies on fisheries activity Work on standards for regional fiscalization agreements (ship riding) Increase environment protection (example of Marine Protected Areas) Promote more efficient legal prosecution	 Grant certificates, diplomas, masters and PHD's in Maritime Security (These should award credits inside the University) Provide affordable courses and programs on Maritime Security (remote learning) Get the private sector more involved and promote more investment Benefit Law-abiding companies and establish a fund for damaged coastal communities Train local communities into sustainable fishing practices 	
•	Security and law enforcement agencies Focus on deterrence by ensuring the rule of law at sea Increase authority at sea. Revise regulations of boarding and visit in high seas Strengthen cooperation (through armed forces and Coast Guards but also international exercises) Harmozine national maritime strategies Increase capacity building and asset modernization (new technologies)	 Civil society and the media Creation of databases and events in Maritime Security Produce Media Briefings regarding IUU and promote Youth Programs Facilitate civil society engagement with financial incentives, prizes, scholarships Publicize monitoring initiatives and the results of community-led efforts 	

RECOMMENDATIONS ARISING FROM THE COURSE FOR COMBATING IUU FISHING

This last chapter offers recommendations based on the 5-day MSC sessions. It summarizes the main areas of knowledge addressed at the IV MSC and offers a "way forward" aligned with the Daily collection of ideas.

I. Strengthening Legislation

Legal provisions on IUU Fishing need to reflect the current capabilities and uses of technologies such as VMS, AIS, and REM. This includes mandating their use on fishing vessels, specifying data reporting requirements, and outlining the use of data for enforcement. IUU fishing methods continue to evolve, so legislation must be regularly reviewed and updated to address new tactics and techniques used by illegal fishers. It is also important to align with International Standards. Harmonising national laws with international agreements and standards, such as those set by the FAO and regional fisheries management organisations (RFMOs), ensures consistency and enhances global efforts against IUU fishing.

II. Enhancing international collaboration

Enhancing international collaboration through robust partnerships and agreements is crucial in the global fight against IUU fishing. Countries can strengthen enforcement, improve data sharing and harmonise regulations by creating a cohesive and effective response to this pervasive problem. International cooperation ensures that no part of the ocean is left unmonitored and that IUU fishers face a consistent and formidable deterrent wherever they operate. Regional bodies should consistently create a collaborative training initiatives that build the capacity of fisheries management and enforcement personnel in developing countries, equipping them with the skills and knowledge needed to combat IUU fishing. Also, establishing and maintaining global databases of fishing vessels, their activities, and compliance records allows for real-time tracking and identification of IUU fishing operations.

III. Enhancing Data Integration and Analysis

Investing in big data analytics platforms enables the processing and analysis of vast amounts of data from various sources, such as VMS, AIS, REM, and satellite imagery, to detect patterns and identify IUU fishing activities. Implementing Artificial intelligence and Machine Learning algorithms helps in automating the analysis of surveillance data, improving the accuracy and speed of identifying suspicious activities and predicting potential IUU hotspots. There is the need to develop integrated information systems that consolidate data from different monitoring technologies into a single platform, facilitating access and analysis by enforcement agencies..

IV. Promoting and supporting sustainable fishing practices

Through education, incentives, effective management, adoption of new technologies, robust legal frameworks, community involvement and research, a more sustainable and resilient fisheries sector can be charted. States should ensure that fishing activities are conducted responsibly and sustainably and protect marine ecosystems. Nations should support the livelihoods of fishing communities to secure a long- term health of global fish stocks.

V. Expanding the Catch Certification Schemes

Implementing catch certification schemes across Atlantic member countries is essential for improving traceability, providing reliable consumer information, and combating IUU fishing. Regional and international organizations should be able to develop standardized certification frameworks by leveraging available technologies, enhancing international cooperation, ensuring compliance, improving consumer information and supporting capacity building to create a robust and effective certification system. These efforts will lead to sustainable fisheries management, increased consumer confidence, and a resilient seafood supply chain.

VI. Creation of National and Regional Research and Analysis Centres

In order to tackle large-scale challenges that transcend national borders, there should be a collaborative national and regional research center. National and regional research centres dedicated to fisheries management and governance would promote a deeper understanding of the issue within specific contexts of mapping IUU hotspots, species monitoring and population assessments. These centres could assist in investigating fishing practices, socio-economic factors, habitat mapping and conservation and developing monitoring and enforcement strategies across the Atlantic Ocean. The research centres would serve as a beacon of knowledge to illuminate the complexities of IUU fishing and guide the development of effective solutions.

VII. Ensure youth inclusivity

Open more youth access to observe and learn regional policy decision making processes through participation in regional learning exchange forums efforts to address IUU fishing. Youth ought to have more opportunities to share ideas and thoughts on how to address IUU fishing in their respective areas. There is the need to include youth into co-design and coimplement regional advocacy and campaign. Youth are more adaptable to new technologies and therefore they are also faster in finding out new sources of information as much as spreading causes. Furthermore, engaging youth in research for combating IUU fishing is essential for promoting innovation, capacity-building, and ensuring long-term commitment to marine conservation. Their skills in areas such as data analytics, machine learning, and remote sensing are valuable for enhancing the effectiveness of research and enforcement efforts.

VIII. Legal finishing

Legal actors, such as judges, prosecutors, and regulatory agencies, are crucial for holding governments accountable and ensuring effective policy enforcement. They interpret laws, investigate violations, and prosecute offenders. However, their effectiveness is often limited by insufficient resources and expertise in complex legal issues. Additionally, sovereign states and political interference can restrict the jurisdiction and authority of regional bodies, hindering their ability to prosecute infractions and enforce decisions across borders. To address these challenges, regional adjudicating bodies should be granted comprehensive legal mandates to prosecute all infractions without restrictions. They must also be isolated from political interference to maintain independence and impartiality. Establishing legal frameworks to protect these bodies from undue influence and ensuring decisions based on legal merits are essential. This includes specialised training programs, exchanging best practices, and collaborating with other international legal organisations to build capacity on regulatory instruments and processes in combating IUU fishing within the regions.