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STRENGTHENING FISHERIES GOVERNANCE AND COMBATING ILLEGAL, UNREPORTED, AND UNREGULATED (IUU) FISHING IN SOMALIA

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ABSTRACT

An Illegal, unreported, and unregulated (IUU) fishing poses a significant threat to Somalia's marine resources, coastal livelihoods, food security, and sustainable fisheries development. Despite its extensive coastline and valuable marine resources, fragmented governance, weak monitoring, control and surveillance, inadequate fisheries data, and limited enforcement capacity undermine effective fisheries management.

This study aimed to examine fisheries governance challenges associated with IUU fishing in Somalia and identify practical strategies to strengthen accountability, compliance, and sustainability. A document-based review was conducted using reports from the Food and Agriculture Organization (FAO), World Bank, peer-reviewed publications, national fisheries policies, and international legal instruments. The selected documents were analyzed thematically, focusing on institutional coordination, legal frameworks, monitoring and enforcement, fisheries data, socioeconomic and environmental impacts, and regional cooperation.

The findings identified overlapping federal and state responsibilities, non-transparent licensing procedures, limited vessel surveillance, insufficient catch reporting, and weak scientific assessments as major governance challenges. These weaknesses obstruct the detection of unauthorized fishing, protection of small-scale fishers, collection of government revenue, and sustainable exploitation of marine resources. The review highlighted the importance of transparent vessel registration, coordinated enforcement, community participation, reliable fisheries databases, and regional information sharing. Strengthening fisheries governance requires an integrated national framework that clarifies institutional responsibilities, improves surveillance, enhances fisheries statistics, and promotes cooperation among government institutions and coastal communities.

Implementing these measures could improve compliance, protect marine ecosystems, strengthen coastal livelihoods, and support sustainable fisheries development. Further empirical research is needed to quantify IUU fishing activities and evaluate intervention effectiveness.

Keywords: Fisheries Governance; Illegal Fishing; Marine Resources; Monitoring Control and Surveillance; Fisheries Management

1 INTRODUCTION

For many coastal communities, marine fisheries mean food, jobs, and income. Managing them well takes good laws, solid data, institutions people can trust, and actual follow-through on the rules. Illegal, unreported, and unregulated (IUU) fishing is still a global headache. It messes up conservation, hides the real numbers, and leaves honest fishers at a disadvantage [1, 2, 3].

IUU fishing breaks down into three things. First, illegal fishing: breaking national or international rules. Second, unreported fishing: people catch fish but don't tell the authorities or fudge the numbers. Third, unregulated fishing: fishing when there aren't any real rules or when boats fish in ways that ignore international responsibilities. Each challenge needs its own solution, though all of them fit together [1].

Somalia sits on a long stretch of coast along the Gulf of Aden and Indian Ocean, packed with valuable fish species. But after years of political chaos and weak institutions, proper fisheries management hasn't had a chance. Research shows that foreign boats, bad regulation, and fights over resources have led to conflict between local fishers and other sea users [4, 5].

IUU fishing isn't just about stealing fish. It squeezes local fishers out of their own waters, wrecks their gear, hurts fish stocks, and deprives the government of license money. It's a nightmare for management too, if no one knows how much is being caught or by whom, it's impossible to make smart decisions. And in Somalia, where families depend on the sea for food and work, the stakes are even higher [2, 4, 6].

Somalia has brought in new fisheries laws and policies to try and fix things. Still, the 2023 World Bank report called out the main issue: bringing the Federal Government and the Federal Member States onto the same page when it comes to managing fisheries. Having laws is great, but they only matter if people actually follow them. [7]. This takes clear roles for institutions, open licensing, enough resources, reliable data, and enforcement people can believe in.

International agreements offer guidelines too. The UN Convention on the Law of the Sea spells out the basics on maritime rights and duties [8]. The FAO Code of Conduct pushes for responsible fishing, and the International Plan of Action on IUU Fishing lays out joint steps for countries to take [1, 9]. The FAO's Port State Measures Agreement is another tool to stop illegal fish from reaching the market [10].

But even with these agreements, Somalia needs a plan that ties national laws to real-world actions, better monitoring, tougher enforcement, smarter scientific assessments, and involving people from the fishing communities themselves. This study pinpoints where governance falls short and suggests realistic ways to strengthen fisheries management and fight IUU fishing.

Study Objective

The goal was to lay out Somalia's fisheries governance problems tied to IUU fishing and come up with real, evidence-based solutions that would boost compliance, accountability, and sustainability.

2 MATERIAL AND METHODS

2.1 Study Design

This was a document-based review of policies and governance. No primary data collection, interviews, vessel checks, or direct observation of fishing.

2.2 Source of Information

The review sifted through materials from the FAO, World Bank, fisheries organizations, peer-reviewed journals, and legal sources. Important documents included the FAO International Plan of Action on IUU Fishing, the Code of Conduct, Port State Measures Agreement, UN Convention on the Law of the Sea, Somalia-centered fisheries research, and national fisheries policy reviews.

2.3 Eligibility and Selection Criteria

Included documents if they tackled any of these topics: IUU fishing and its effects, Somali fisheries law and policy, institutional teamwork, monitoring and enforcement, fisheries info and stock checks, cooperation in the region, or how communities take part in fisheries management. Priority went to peer-reviewed studies, legal agreements, and official reports from recognized bodies. The selection was driven by relevance, not a formal systematic-review process.

2.4 Data Extraction and Thematic Analysis

Information was grouped under six themes: legal and institutional setup, federal coordination, monitoring and enforcement, fisheries data and science, social and environmental impacts, and work across borders. Thematic analysis helped spot where governance often falls down and which fixes might help.

2.5 Methodology limitation

This wasn't a registered systematic review and isn't exhaustive. There were no pooled numbers, no statistics, and no direct estimates for how much IUU fishing is going on. The findings come from the documents available and would be stronger if backed by fieldwork, vessel tracking, catch records, and input from the people involved.

3 RESULTS AND DISCUSSION

3.1 Fragmented fisheries governance and institutional coordination

One of the biggest roadblocks in Somali fisheries is the mess of overlapping responsibilities between federal and local authorities. When it comes to licensing, managing resources, chasing illegal vessels, or collecting revenue, things just aren't lined up—each level of government does things their own way. This creates loopholes that certain vessels know how to exploit, and frankly, it makes it hard to keep anyone accountable.

The World Bank's 2023 report spells it out clearly: unless federal and state authorities get on the same page and run this sector transparently, the whole system stays shaky. Coordination isn't just a bureaucratic box to tick. It matters for building trust and keeping rules clear.

Centralizing everything isn't the answer, though. Somalia needs a national framework that spells out exactly who does what: who sets policy, who handles which licenses, who collects and manages fisheries data, who inspects vessels, and who takes legal action when someone breaks the rules. With clear roles and a shared information system, both levels of government can work together rather than bump into each other.

Setting up an intergovernmental fisheries body could help and jointly deciding on licensing, conservation, revenue, and enforcement. The structure should respect the constitution while making sure permits don't overlap and turf wars don't waste resources.

3.2 Weak monitoring, control, and surveillance

Every effective fisheries system relies on good monitoring, control, and surveillance or MCS, as people in the field call it. Monitoring collects information, control sets and enforces the rules, and surveillance makes sure those rules are followed.

Now, Somalia's huge coastline is a logistical nightmare. With few patrol boats, patchy vessel records, and not enough access to real-time surveillance, authorities can't keep up with what's happening offshore.

Research shows that weak enforcement, especially with foreign boats coming in, stirs up a whole set of issues for local communities. But it's not as simple as calling every foreign boat illegal. You have to judge each one by laws, licenses, conservation measures, and the context.

A good MCS setup isn't just fancy technology or paperwork with it's a mix. Registering and licensing all vessels proves who's allowed to fish. VMS, AIS, and satellite images can flag suspicious activity. Electronic catch reports and port inspections provide the next layers of evidence. These tools only work if you use them together, not in isolation.

Focusing surveillance on risky areas like places closed to fishing, or where vessel records don't match up, helps stretch limited resources further. Investigations should follow clear guidelines, and authorities should enforce the rules with solid evidence.

3.3 Fisheries data gaps and scientific management

You can't manage what you can't measure. Without solid data how much is caught, by whom, using which gear, in which seasons, there's no way to know if the fishery is being run sustainably or is in trouble [2, 3, 11].

Globally, IUU fishing, illegal, unreported, and unregulated makes this even harder, skewing stock assessments and blunting the impact of management plans. In Somalia, years of weak institutions and little scientific oversight have built up major information gaps.

The solution! Set up a national fisheries information system with everything in one place: vessel registrations, license validity, catch and effort data, inspection results, violations, and details from landing sites. Start by collecting data at a few landing sites, then expand.

Proper monitoring digs deeper getting species identification, size and weight of fish, catch composition, seasonal patterns, and types of fishing gear used. That's where partnerships with universities, research centers, and international agencies can make a difference. They can fill in the science and help train staff.

Since Somalia is part of the Indian Ocean Tuna Commission, meeting its reporting and management requirements is crucial and needs to be done by agencies empowered to do the job. Other fisheries, too, should be managed using data and rules that fit their ecology and legal context.

3.4 Licensing transparency, accountability, and enforcement

Licensing is more than a box to tick. Done right, it raises public revenue and sets the rules of the game. Done wrong with murky procedures, conflicting permits, or unclear vessel owners, it just opens the door for rule-breaking.

The World Bank's recent analysis hits the nail on the head: political meddling and weak governance in licensing undermine the whole sector. Tougher enforcement alone won't fix this as it has to start with a transparent and accountable licensing process.

Somalia needs to publish a national register of all authorized fishing vessels. Confidential information can be protected, of course, but basic facts like vessel name, flag, owner, species allowed, fishing zones, and gear type should be public. License fees and revenue sharing should follow clear, auditable rules.

Before any license gets issued, renewed, or recognized, it should be checked against the national database. Any violations must go through proper administrative or legal procedures, with penalties that actually deter repeat offenders.

The new national fisheries law passed in 2023 isn't enough by itself. The real change happens in the implementing rules, day-to-day procedures, and sorting out any clashes between federal and state policies without weakening conservation or legal protections.

3.5 Socioeconomic and environmental consequences

IUU fishing drains Somalia's fisheries on many fronts. The costs are direct lost license fees, fierce competition over grounds, and damage to gear. But they're also indirect eroded trust in government, unreliable data, fewer investments in legal fisheries, and extra pressure on marine life.

Glaser and colleagues lay out how foreign illegal fishing isn't just a resource problem. It fuels competition with locals, makes life tougher for small-scale fishers, and adds to wider maritime tensions. Clearly, fisheries governance is both about managing resources and protecting livelihoods.

Still, it's essential not to overstate the connection between illegal fishing and piracy or crime. Governance failures and resource disputes sometimes overlap, but that alone doesn't mean one directly causes the other.

Better governance must support small-scale fishers with basics like landing facilities, ice production, cold storage, processing, and easier access to legal markets. These steps mean less waste, higher product value, and more money staying in coastal communities.

And environmental protection can't be an afterthought. Unauthorized or destructive fishing wrecks sensitive habitats and drives fisheries into decline. Management decisions should rest on the best science available and when crucial data is missing, stick to the precautionary principle.

3.6 Regional and international cooperation

Illegal fishing rarely stops at national borders. The vessels, owners, ports, processors, and markets form networks that stretch across countries. Chasing them with just Somalia's resources gets you only so far. Laws like the United Nations Convention on the Law of the Sea and the FAO Port State Measures Agreement set out international ground rules. [12]. They let countries work together to keep illegal fish out of legitimate markets and to set standards for enforcement.

Somalia needs to plug into these regional and international networks—sharing information with neighbors, checking vessel authorizations, inspecting high-risk ships, investigating suspicious transshipments, and swapping evidence

quickly. This kind of cooperation works only if Somalia has national focal points, clear processes for sharing information, and well-trained fisheries inspectors. International help is valuable but should build Somali capacity, not just do the job for them.

3.7 Integrated governance framework for Somalia

Tackling IUU fishing isn't about a single silver bullet. You can have all the satellite images in the world, but if you can't cross-check licenses or investigate vessels, it doesn't help much. If the laws are strong but there's no one to enforce them, or if locals report issues and nobody acts, nothing changes. What works is a coordinated framework: laws that match across levels of government, transparent licensing, integrated monitoring and enforcement, solid data, community co-management, and regional partnerships pulling in the same direction.

Step-by-step is best. In the first year, set up intergovernmental coordination, review the rules, clean up vessel and license records, standardize how landing sites report data, and zero in on high-risk areas. Over the next two to three years, expand electronic reporting, do risk-based inspections, build surveillance partnerships, kickstart scientific assessments, and work with fishing communities on co-management.

Progress needs real indicators. Track the share of licensed vessels with verified data, catch reporting completeness, number of inspections, percent of violations with follow-up, how well federal and state records match, and how much fishers participate in decisions. Set a baseline before chasing targets.

All these lines up with international best practices for responsible fisheries and fighting IUU fishing. Success, though, will depend on steady funding, political will, real cooperation, and transparent reporting.

4 CONCLUSION

IUU fishing is a serious threat to Somalia's fisheries. The root problems fragmented responsibilities, weak surveillance, poor data, unclear licensing, and bad coordination constantly undermine effective management.

Having good laws and international agreements is essential, but unless they're backed by strong institutions and real accountability, they won't deliver much. Fixing fisheries governance needs more than just new patrol boats or fresh regulations. It's about connecting every link licensing, monitoring, reporting, science, enforcement, and community involvement into one workable system.

Somalia's central government and federal member states need to work together on this: running fisheries transparently, keeping information up to date, plugging enforcement gaps, and sharing the workload. Help from the region and global partners' matters, but it should reinforce, not replace, Somalia's own capacity. With a clear plan, phased approach, and enough resources, the country can protect its marine resources, boost coastal incomes, strengthen food security, and capture more lasting value from its fisheries.

Recommendations

- Get everyone on the same page with fisheries laws and responsibilities. Create clear, agreed rules for licensing, conservation, inspections, enforcement, and revenue that work across federal and state offices in the coastal regions.
- Roll out a national action plan against IUU fishing. Build and put in place a National Plan of Action that actually lines up with the FAO guidelines. Set measurable goals and make sure every institution involved knows exactly what it's supposed to do.
- Boost how they monitor and control what's happening at sea. Start expanding vessel tracking, satellite surveillance, risk-based inspections, and joint enforcement, especially where illegal fishing is most common.
- Set up a clear and public national register for vessels and licenses. Check vessel identity, where and what they're allowed to fish, what gear they can use, and what rules apply. Make this info available and bring in outside audits on a regular basis.
- Make fisheries data and research better. Standardize how catch and effort is reported at landing sites, improve fisheries statistics, carry out stock assessments, and encourage more teamwork between ministries, universities, and researchers.
- Get tougher and fairer on enforcement. Give fisheries inspectors real training and the resources they need, with set procedures. Make sure violations are properly investigated, and dealt with openly, fairly, and according to the law.
- Put local communities in the driver's seat for managing fisheries. Bring in artisanal fisheries, cooperatives, women working in processing and marketing, and local officials to help set rules and flag any illegal activity they see.

- Strengthen regional and international ties. Share information with neighboring countries, flag states, regional fisheries bodies, and international partners. Make sure Somalia follows its global fisheries commitments.
- Invest in better and more sustainable coastal livelihoods. Improve things like cold storage, ice production, handling and processing centers, and market access, so Somali fishing communities keep more of the value for themselves.
- Build a solid system for monitoring and evaluating progress. Create basic indicators for vessel registration, catch data, inspections, enforcement, data quality, and community involvement. Publish regular updates so everyone stays accountable.

STATEMENTS ON COMPLIANCE WITH ETHICAL STANDARDS

Disclosure of conflict of interest

The authors confirm that there are no conflicts of interest related to the publication of this Review Article.

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