SUPPORTING RPOA-IUU IMPLEMENTATION: DATA SHARING AND MCS TRAINING

2023

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Suggested Citation:

Stanford, R. (2023). Supporting RPOA-IUU Implementation: Data sharing and MCS training. Report to the Arafura and Timor Seas Ecosystem Action Phase 2 (ATSEA-2) Program, Bali, Indonesia. 37pp.

Cover Image: Participants of the 15th Coordination Committee Meeting in Perth, Australia

Printed in Denpasar, Bali, Indonesia

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LIST OF ACRONYMS

AFMA	Australian Fisheries Management Authority
AMS	ASEAN Member State
AN-IUU	ASEAN Network for combating IUU Fishing
ATSEA-2	Arafura and Timor Seas Ecosystem Action Phase 2
ATS	Arafura and Timor Seas
CCM	Coordination Committee Meeting
CSIRO	Commonwealth Scientific and Industrial Research Organization
DAFF	Department of Agriculture, Fisheries and Forestry (Australia)
FAO	Food and Agriculture Organization
FFA	Pacific Islands Fisheries Forum Agency
GEF	Global Environment Fund
IUU	Illegal, Unreported and Unregulated fishing
LME	Large Marine Ecosystem
MCS	Monitoring, Control and Surveillance
NOAA	National Oceanic and Atmospheric Administration
PNG	Papua New Guinea
PSMA	Port State Measures Agreement
RFVR	Regional Fishing Vessel Record
RPOA-IUU	Regional Plan of Action to Promote Responsible Fishing Practices including Combating IUU Fishing in the Region
SEAFDEC	Southeast Asian Fisheries Development Center
UNDP	United Nations Development Program
VMS	Vessel Monitoring Schemes
WATF	West Africa Task Force

ACKNOWLEDGEMENTS

EXECUTIVE SUMMARY

No individual country can stamp out illegal fishing on their own. Regional networks such as the RPOA-IUU (The Regional Plan of Action to promote responsible fishing practices including combating IUU fishing in the region) provide an opportunity for collaborative solutions. Two important areas of collaboration were identified by the RPOA-IUU working together with the ATSEA-2 Project. Firstly, the need for closer information-sharing between RPOA-IUU members to tackle the shared problems of IUU that they face. Secondly, the need for capacity-building in the areas of monitoring, control and surveillance (MCS).

This report outlines what is already happening regionally concerning information-sharing and MCS training, and the key issues/needs that RPOA-IUU countries have, before proposing a way forward. Using a mixed-methods approach of a desk-based review, key informant interviews and focus group discussions, nine key themes for information-sharing were identified, along with nine needs for MCS capacity-building.

The nine information-sharing themes were:

1. **Goodwill.** Members appreciate being part of RPOA-IUU and recognise that information-sharing is valuable.
2. **Networking.** Members want better networking and more regular meetings, especially sub-regional meetings.
3. **Benefits.** Members want to see incremental progress towards tangible benefits that will combat IUU fishing.
4. **Terminology.** Members want to agree on precise terminology and use this consistently.
5. **Products.** Members want information/intelligence products that can be used for prioritizing where to deploy assets and for prosecutions. They do not want just more data.
6. **Coordination.** For some members, in-country coordination between government departments is lacking.
7. **Commitment**. Members recognise that commitment from a high level of government will be needed for data-sharing.
8. **Culture.** Evaluating failure is difficult for some countries in particular because of the sense of shame attached to this.
9. **Duplication**. Future information-sharing needs to complement and not duplicate current activities.

The nine capacity-building needs identified by members were:

1. **Data analysis.** In particular, unlocking the potential of Vessel Monitoring Schemes.
2. **Prioritizing enforcement activities.** Having systems in place to sift through large quantities of data to prioritize deployment.
3. **Integrated governance.** Having different government departments within a country collaborating rather than competing.
4. **Port State Measures Agreement (PSMA).** Ensuring national legislation and implementation are aligned with PSMA.
5. **Conducting fisheries inspections.** Ensuring inspections are utilising best practices.
6. **Securing a prosecution.** Including improving evidence gathering and storage.
7. **MCS training is conducted at national/local levels.** Capacity-building would be most valuable if it was tailored to the needs of individual countries rather than generic training for the region.
8. **Voluntary compliance.** Cultivating an environment where registered vessels take part of the responsibility for ensuring compliance.
9. **Legal training.** Increasing awareness of fisheries legislation (national and international) among legal personnel involved in prosecutions.

A way forward is proposed that includes the following nine steps that will help the RPOA-IUU move towards effective information-sharing.

1. **Vision.** Clarifying how information-sharing can make a significant contribution to combating IUU fishing.
2. **Concrete examples.** Support RPOA-IUU members in the sub-regional groups to identify those specific issues where sharing information will help them.
3. **Identify and prioritize** data that countries are willing to share, that is not too expensive and that will have a significant impact on reducing IUU fishing.
4. **Commitment.** In tandem with step 5, building trust and commitment between sub-regional group members so they are willing to attempt information-sharing for a specific issue.
5. **Quick wins.** Identifying the 'low-hanging' fruit, even steps as simple as countries having reliable focal points in neighbouring countries will build confidence in the process.
6. **Technical practicalities.** Ensuring that the processes to store and manage the information that is shared are clear.
7. **Written agreements and guidelines** that detail the principles and policies that underpin information-sharing. For example, no data will be shared with a third party without written permission from the country that owns the data.
8. **Access and align** with other regional initiatives. Encourage RPOA-IUU members to make use of existing platforms and ensure RPOA-IUU information-sharing complements and not duplicates the work of others.
9. **Additional capacity** needs to be brought in where this can add value. For example, this could be analytical expertise with VMS data or IT expertise with managing databases.

The report concludes by affirming that the existing sub-regional group structure in the RPOA-IUU will be the most effective way to make progress with information-sharing and that this needs to focus on finding practical solutions to real-life challenges that RPOA-IUU members face.

1. BACKGROUND

The South China Sea, Sulu-Sulawesi Seas and the Arafura-Timor Seas are rich ecosystems that support the livelihoods of tens of millions of people. Biodiversity hotspots such as the Coral Triangle underpin large pelagic and demersal fisheries, bustling ports and global trade. However, this region is threatened by unsustainable fishing and illegal, unreported and unregulated (IUU) fishing. Because both fish and boats cross borders, no country on its own can solve this problem. This is why regional collaboration to tackle regional challenges are such a crucial part of the solution.

The Regional Plan of Action to promote responsible fishing practices including combating IUU fishing in the region (RPOA-IUU) is a voluntary instrument to enhance and strengthen the overall level of fisheries management in the region. The scope of the RPOA-IUU includes the conservation of fisheries resources and their environment, managing fishing capacity, and combating IUU fishing. The RPOA-IUU includes three sub-regional groups; (1) the Gulf of Thailand, (2) the South China Sea and Sulu-Sulawesi Seas, and (3) the Arafura-Timor Seas.

The Arafura and Timor Seas (ATS) is part of the North Australian Shelf large marine ecosystem (LME), which is a tropical sea lying between the Pacific and Indian Oceans and extending from the Timor Sea to the Torres Strait and including the Arafura Sea and Gulf of Carpentaria. The area has been the focus of ATSEA-2, the second phase of the GEF-financed, UNDP-supported ATSEA program. This 5-year project will support the implementation of the following governance and environmental objectives of the ATS regional Strategic Action Program: (i) Strengthening of ATS regional governance; (ii) Recovering and sustaining fisheries, including combating IUU fishing; (iii) Restoring degraded habitats for sustainable provision of ecosystem services; (iv) Reducing land-based and marine sources of pollution; (v) Protecting key marine species; and (vi) Adaptation to the impacts of climate change.

As IUU fishing is still prevalent in the ATS region, the activities under the fisheries component of the ATSEA-2 Project are designed to work in tandem with the RPOA-IUU and the sub-regional groups. ATSEA-2 is proud to work alongside the RPOA-IUU in strengthening regional capacity to combat IUU fishing in the region.

2. PURPOSE

The ATSEA-2 Project, together with the RPOA-IUU, identified two key areas where they could collaborate:

1. To explore with RPOA-IUU stakeholders the potential for improving information-sharing[1].
2. To scope out Monitoring, Control and Surveillance training and capacity-building needs for RPOA-IUU members.

ATSEA-2 employed a consultant to lead this process and this report outlines the methodology, findings and recommendations from this work. Because this piece of work is a small part of a much larger, long-term program, this report is intentionally written concisely with supporting detail included in the annexes.

3. METHODOLOGY

The first stage of this project identified existing information-sharing and MCS training initiatives in the RPOA-IUU region. A desk-based review of reports, websites, online databases and minutes of RPOA-IUU meetings was conducted. These resources are listed in Annex 1.

Secondly, key informant interviews (KII) with representatives from each member country took place during November and December 2022. Interviews were online using ZOOM, or in person during the 15th Coordination Committee Meeting (CCM) in Perth, Australia. Some interviews were with individuals, others with a small group of 2-4 representatives from different government bodies. A full list of interviewees and the questions they were asked is provided in Annex 2.

Interviews were conducted in English, transcribed and analysed according to themes. Recurring themes were summarised and highlighted in a brief presentation at the 15th CCM and are outlined below. To minimise researcher bias, the author regularly asked questions of clarification and included quotations that use the precise language of the respondent. As these interviews were conducted in the second language of many of the respondents, there remains the possibility that certain terms may be misunderstood or used differently by individuals. This point in itself is a valuable finding (see comment on 'terminology' below).

Thirdly, Focus Group Discussions (FGDs) were held online with members of the three sub-regional groups. FGDs took place at the sub-regional group level because RPOA-IUU members had requested closer networking for sub-regional groups and because these smaller groups of neighbouring countries face similar challenges and shared interests. The FGDs followed the same pattern:

1. Presentation of findings from desk review and preliminary KII.
2. Discussion of those findings.
3. Identification of next steps for information-sharing.
4. Discussion on training needs and next steps for MCS capacity building.

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[1] *Information-sharing* rather than *data-sharing* is used throughout this report at the request of RPOA-IUU members. Data can be defined as raw, unorganized facts. Information is processed, organised data that is presented in a meaningful context. RPOA-IUU members felt that phrases such as *data-sharing mechanism* carried the sense of more formal, binding commitments, whereas the term *information-sharing* more accurately captured what was realistically achievable for RPOA-IUU members in the short to medium term.

4. FINDINGS AND CONCLUSIONS

The findings and conclusions below are separated according to the two elements of this project; information-sharing and MCS training.

The first section of the findings, *existing information-sharing*, outlines current information-sharing initiatives regionally and sub-regionally. It also distils some valuable lessons from two regional partnerships in the Pacific Ocean and Africa. The report then details the main findings from the KIIs regarding information-sharing in the section *emerging themes from the KIIs: information-sharing*.

The second part of the findings describes *existing MCS training* initiatives. It then summarises the *MCS training needs* identified by RPOA-IUU members.

4.1 EXISTING INFORMATION-SHARING.

Regional initiatives

Within the ASEAN region, there are two main data-sharing collaborations.

1. *Regional Fisheries Vessel Record[2] (RFVR)*

The RFVR (Figure 1) is an ASEAN initiative implemented by the Southeast Asian Fisheries Development Center (SEAFDEC). ASEAN Member States (AMS) enter vessel data for large fishing vessels registered in their country (currently >24m) into an online database. Twenty-eight key data elements for a vessel can be input[3]. The RFVR was developed to bring transparency and to support inspections of fishing vessels by port states. It helps to clarify which vessels can legitimately fish in an area and land catches into a port.

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[2] For more information on the RFVR see: http://www.seafdec.or.th/rfvr/dashboard.php
http://www.seafdec.or.th/home/fishery-knowledge/iuu/regional-fishing-vessels-record and
http://www.seafdec.or.th/home/phocadownload/FisheryKnowledge/IUU/RFVR.pdf
[3] The 28 key data elements for the RFVR are: Vessel name, Vessel registration no., owner name, fishing method/gear, fishing license no., expiration date of fishing licenses, port of registry, gross tonnage, length, breadth, depth, engine power, shipyard, date of purchase/build/launching, international radio call sign, engine brand, engine serial no, hull material, date of registration, area of fishing operation, nationality (flag), previous name, previous flag, name of captain, nationality of captain, no. of crew, nationality of crew, IMO no.
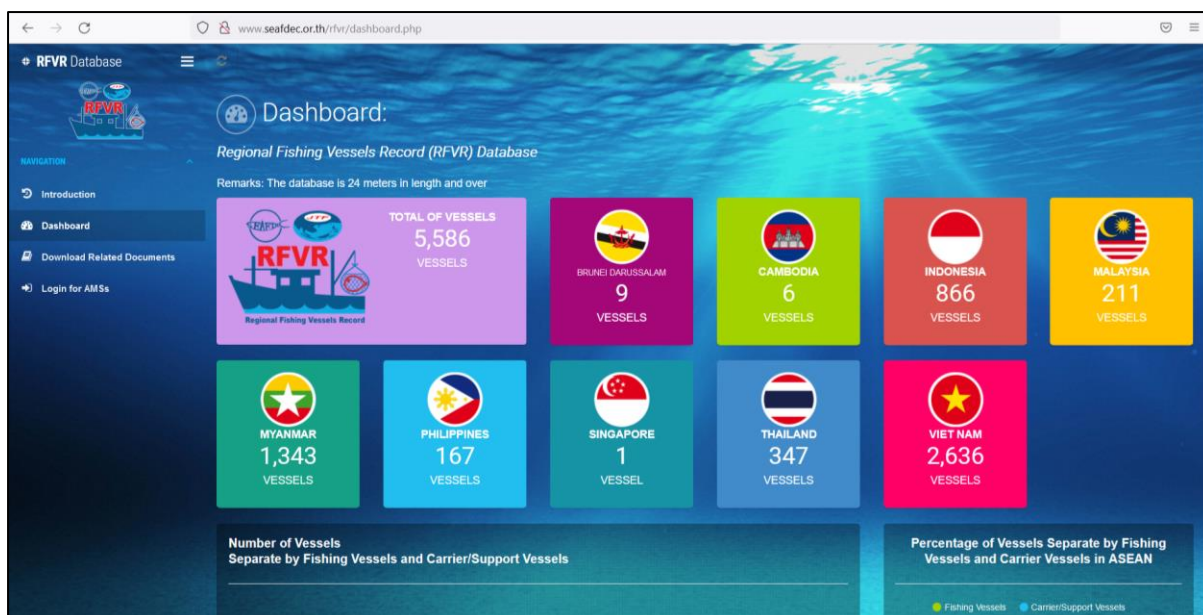
Figure 1 – The Regional Fishing Vessels Record (RFVR) public dashboard. Screenshot accessed 15 February 2023 from http://www.seafdec.or.th/rfvr/dashboard.php

The RFVR could be a valuable resource for RPOA-IUU members in combating IUU fishing. Important considerations for the RPOA-IUU regarding the RFVR database are as follows:

Keeping it up-to-date. All databases need to be regularly updated to stay useful and at the moment not all AMS are inputting data to the RFVR annually. If the RFVR is to be widened to include even more vessels (e.g. 18-24 m), who will submit and maintain these records?

Linkage with Food and Agriculture Organisation (FAO) global record[4]. The FAO global record and the RFVR share similar goals of transparency, aiding traceability and supporting PSMA. Some AMS/RPOA-IUU members participate in the global record while others do not. Consideration is needed as to whether the two mechanisms can be linked to reduce duplication.

Access for non-AMS. Australia, Papua New Guinea (PNG) and Timor Leste are not currently party to the RFVR. As Timor Leste is joining ASEAN this may change. For Australia and PNG, it may be worth exploring with ASEAN whether they can access the RFVR in the future.

The RFVR is a 'white list'. The RFVR is a 'white list' of vessels which includes only registered fishing vessels. It is not a 'blacklist' of illegal vessels or vessels on a watch list.

2. <u>The ASEAN Network for Combating IUU Fishing (AN-IUU)</u>

The AN-IUU aims to "*enhance regional cooperation on information sharing through an online interactive platform*"[5]. ASEAN member states can upload 'incidents' of suspected IUU fishing onto the platform including vessel ID, images, vessel tracking and a description of the action taken against the vessel. The platform also includes:

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[4] See: https://www.fao.org/global-record/information-system/en/
[5] See page 5 of: https://www4.fisheries.go.th/bin/an_iuu_manual.pdf and the online platform here: https://an-iuu.fisheries.go.th/an-iuu/

- A watch list of IUU vessels will be updated weekly by the AN-IUU administrator.
- Contact information for each focal point in AMS.
- A reporting section where users can share best practices and news.
- A regulation section where each country user can share national law/regulations relating to IUU.

The AN-IUU is a recent initiative (2020) and does not include a public dashboard showing how operational it currently is.

The AN-IUU could be a valuable resource for RPOA-IUU members. However, several of the same questions for the RFVR also apply to the AN-IUU namely:

- Will non-AMS be able to access the AN-IUU?
- Who from each country will be responsible for updating information?
- How will the AN-IUU watch list complement or duplicate other watch lists?

Sub-regional information-sharing

Sub-regional working groups of RPOA-IUU do share information, although the consistency of sharing and the level of detail varies between sub-groups.

Currently, the ATS sub-regional group is the most active. It has conducted joint surveillance operations and coordinated patrols such as 'Operation Gannet'[6]. Australia and PNG share data through the Pacific Islands Fisheries Forum Agency and Australia also communicates with neighbouring countries such as Timor Leste when Australian vessels enter their waters. Indonesia and Australia are also working together on a public information campaign to help reduce illegal transboundary fishing activities. One of the strengths of this sub-regional group is that most of the counterparts in the different countries know each other well and connect easily, as required. The second strength of this group has been to identify key issues (e.g. illegal incursions of neighbouring fishers) and then to collaborate with their neighbouring countries to try and find practical solutions (e.g. public information campaigns). Members of the ATS group appreciate this existing collaboration but they recognise there is more work to be done, especially concerning vessels crossing maritime boundaries and fishing illegally in neighbouring waters.

The two other sub-regional groups have lost momentum in recent years. A combination of the COVID pandemic restricting travel, together with a lack of funding has contributed to this. Most sub-regional group members express regret at this situation and want it to change in the future (see networking section below)

Case-by-case basis

In addition, information sharing is already occurring when specifically requested on a case-by-case basis but this process is not working well universally. Some countries have bilateral MOUs with other countries and prioritise information sharing with neighbouring states more than others. For example, one of the countries interviewed stated, *"We work hard to establish good relationships with our counterparts in other countries."* A different country concurred with this

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[6] See Appendix 4 https://repository.seafdec.org/handle/20.500.12066/7153

sentiment, saying, *"We have requests from flag states…in the spirit of cooperation we tell them when it arrived when it departed and whether it is bunkered."* In contrast, other countries are less cooperative with one respondent complaining, *"In some cases, we request [neighbouring country] to inform us when their vessels enter our waters. They never share the information with us."*

Other examples of regional data sharing collaboration

There are two regional collaborations that the RPOA-IUU can learn from, the Pacific Islands Forum Fisheries Agency and FISH-I Africa/West African Task Force.

1. The Pacific Islands Forum Fisheries Agency –

The FFA was founded in 1979 to help its Pacific Island members, currently 17 nations, sustainably manage their fishery resources. The FFA is *"an advisory body providing expertise, technical assistance and other support to its members who make sovereign decisions about their tuna resources"*[7]. FFA members cooperate in regional surveillance operations, observer programs, and vessel registration, through a variety of treaties and agreements and through the FFA vessel monitoring system, which allows members to track and monitor vessels across the region. The FFA has developed strategies and policies for:

- Regional Monitoring, Control and Surveillance.[8]
- Information security management.[9]
- Best practices for a data analysis unit.[10]

Given that many of the Pacific islands have small populations, the FFA brings a high level of technical capacity to nations that would struggle to access that on their own. The FFA can develop best practices and nations can adopt this. This is both efficient and avoids the difficulties of countries developing their systems which are not easily compatible with one another.

Having reviewed these comprehensive FFA documents and interviewed Allan Rahari, the FFA director of fisheries operations, there are some key lessons learned by the FFA over more than 40 years that may help the RPOA-IUU move towards information-sharing.

Gradual progression. Cooperation grew incrementally. It was not the case that all the countries agreed to move forward together, rather, *"the FFA started sharing data between a couple of members for fisheries surveillance operations. As members became comfortable, they started moving from time-limited sharing to indefinite sharing. A gradual development…"*.

Benefit driven. Data-sharing took place between members when it was advantageous to do so. When members of the FFA identified a challenge and saw how data-sharing could be part of the solution they took action. *"Members need to see the benefits…We work very closely with the members that want to move forward so we can see benefits."*

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[7] https://www.ffa.int/about
[8] https://www.ffa.int/node/2099
[9] https://www.ffa.int/isms-policy
[10]https://www.ffa.int/system/files/Best%20Practice%20Guidelines%20for%20a%20Model%20Data%20Analysis%20Unit.PDF

Operational led. Typically, it is fisheries officers and technical personnel who face a problem in the field and who work together to find a solution. While this involves discussion with decision/policymakers, *"it is the operational people who come together,* [they identify] *what sorts of data are needed to deal with this problem… our operational experiences shape our policy*."

Common understanding. Although operational needs drive policy, the FFA's example highlights the need for clear, agreed guidelines. Members want to know exactly what their data will be used for and when they know that it won't be inappropriately used, they are more committed to data-sharing. Allan said *"… you need to have in place some common understanding to guide how you want to take data-sharing forward. Having in place an information-sharing policy that provides some key principles…"*

Vision from the members. The FFA exists to serve and support its members. So it is the members and their priorities that dictate the direction of the FFA. "Members drive the vision. The FFA provides the support, the technical/policy advice."

2.   FISH-I Africa and the West Africa Task Force.

FISH-I Africa is a regional partnership of eight East African countries (Comoros, Kenya, Madagascar, Mozambique, Seychelles, Somalia and Tanzania) that was established in 2012 to stop illegal fishing in the area. The partnership enables real-time information/intelligence sharing and coordinates enforcement actions. The West Africa Task Force (WATF) is a partnership of six West African countries (Benin, Côte d'Ivoire, Ghana, Liberia, Nigeria and Togo) that share information, track vessels, identify potential illegal activity and support cases from evidence gathering to prosecution. Both partnerships have emerged from 'Stop illegal fishing', which was launched in 2007[11].

While there are many reports and strategic action plans published about these two regional partnerships[12], one, in particular, is helpful for the RPOA-IUU. It[13] tells the story of why the FISH-I Africa and WATF taskforces were established, who is involved, how they are run, what they do and what success looks like. Two aspects of this work are specifically helpful to the RPOA-IUU:

1.   Figure 2 lays out the differences between countries working alone, coordinating, cooperating and collaborating. It makes the point, supported by research commissioned by the PEW Charitable Trust[14], that collaboration is more effective and saves money. The report[13] is realistic to state that, *"Developing full collaboration to stop illegal fishing is not a linear process, it will involve learning curves and successes and failures along the way."* But if countries persevere and keep the shared vision as the priority, *"the overall sum of benefits will be greater, than if countries acted alone".*

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[11] For more information on stop illegal fishing see: https://stopillegalfishing.com/

[12] See: https://fcwc-fish.org/resources/reports and https://stopillegalfishing.com/all-publications/

[13] https://stopillegalfishing.com/wp-content/uploads/2021/07/Regional-Cooperation-to-stop-illegal-fishing_DP.pdf

[14] https://cebr.com/wp-content/uploads/2021/03/An-agent-based-model-of-IUU-fishing-in-a-two-state-system-with-information-sharing-Cebr-report.pdf

ACTING ALONE

- No regional activity – only internal interagency cooperation.
- No shared sense of identity.
- Competitive.

COORDINATING

- Occasional activity – as resources allow or in response to events.
- Supports ad hoc group efforts.

COOPERATING

- Supports group and individual ventures.
- Systematic and ongoing – planned through task force.

COLLABORATING

- Joint approach – embedded in policy and legal framework to support MCS and development of minimum terms and conditions.
- Priority to group, for greater good.
- Joint identity.
- Shared goals.

Figure 2 – The benefits of regional collaboration. Sourced from page 14 of 'Regional Cooperation to Stop Illegal Fishing[13]

2. The report uses a simple traffic light system and two sets of criteria to evaluate collaboration. The first set of criteria is cost, capacity required and effectiveness. These can be understood as; How much an activity will cost to do? What is the capacity required to achieve success? How effective will the activity be at reducing illegal fishing? Using these criteria, an activity such as 'routine sharing of information' (Figure 3) is deemed as low cost, needing low capacity and is highly effective in combating illegal fishing because open communication creates transparency, avoids bureaucracy and helps countries to develop a common understanding of where IUU risks are. The second set of criteria used is priority, opportunity and effectiveness. This evaluates an activity, such as creating an online communications platform, and asks the questions; Is doing this activity a priority for members? Is there an opportunity to create this? And how effectively is it working? Both sets of criteria would help the RPOA-IUU members identify information-sharing priorities and gauge how achievable these would be in the short term.

ROUTINE SHARING OF INFORMATION

COST:	**LOW**
CAPACITY REQUIRED:	**LOW**
EFFECTIVENESS:	**HIGH**

Regular face-to face meetings to bring together representatives from task force countries, with the technical team and others, including invited observers and experts.

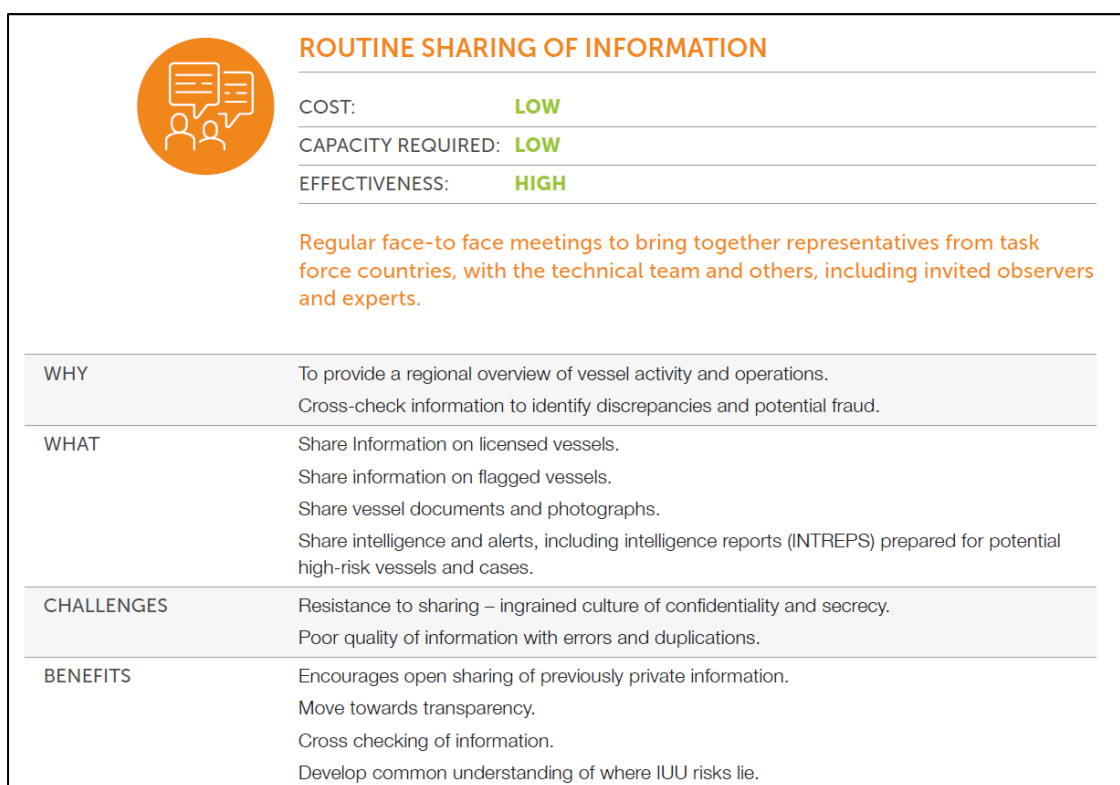|	
WHY	To provide a regional overview of vessel activity and operations.
	Cross-check information to identify discrepancies and potential fraud.
WHAT	Share Information on licensed vessels.
	Share information on flagged vessels.
	Share vessel documents and photographs.
	Share intelligence and alerts, including intelligence reports (INTREPS) prepared for potential high-risk vessels and cases.
CHALLENGES	Resistance to sharing – ingrained culture of confidentiality and secrecy.
	Poor quality of information with errors and duplications.
BENEFITS	Encourages open sharing of previously private information.
	Move towards transparency.
	Cross checking of information.
	Develop common understanding of where IUU risks lie.

Figure 3 – The approach used by FISH-I Africa/WATF to evaluate their programs/activities. Reproduced from page 56 of 'Regional Cooperation to Stop Illegal Fishing [13]

4.2 EMERGING THEMES FROM KIIS AND FGDS: INFORMATION-SHARING

Interviews and Focus Group Discussions with RPOA-IUU members identified five themes that information-sharing activities need to build on and that are valued. They identified four further themes that could present challenges, or that needed to be avoided. These are summarised in Table 1 and described in more detail below.

TABLE 1: THEMES FOR INFORMATION SHARING IDENTIFIED BY RPOA-IUU MEMBERS	
RPOA-IUU MEMBERS VALUE	**CONCERNS OF RPOA-IUU MEMBERS**
Goodwill – they appreciate being part of the RPOA-IUU and recognize that information-sharing is valuable.	Coordination – in-country coordination between government departments is lacking in some countries.
Networking – they want better networking and more regular meetings, especially sub-regional meetings.	Commitment – commitment from a high level of government will be needed for data-sharing.
Benefits – they want incremental progress towards tangible benefits towards combating IUU fishing.	Culture – evaluating failure is difficult for countries because of the sense of shame attached to this.
Terminology – they want to agree on precise terminology and to use this consistently.	Duplication – further information-sharing needs to complement and not duplicate current activities.
Products –they want information/intelligence products that can be used for prioritizing where to deploy assets and for prosecutions.	

An existing baseline of goodwill and trust

Because the RPOA-IUU has existed for many years, there are warm relationships between the focal points of member countries and an appreciation that cooperation, including sharing information, is valuable. Respondents commented *"We are happy to cooperate"*, *"We are very keen and willing and committed to share the information"* and, *"The RPOA is a good product and has worked well over a number of years"*. This is an important foundation for further information-sharing.

Although there was a universal appreciation of the RPOA-IUU, there were differing degrees of trust and openness between individual nations. Putting it bluntly, some countries are frustrated because vessels from neighbouring countries are illegally fishing in their waters and they have not been able to resolve this situation.

"We have requested a list of their vessels but they [neighbouring country] have not responded. Perhaps they do not want to share this information or probably we are communicating with the wrong people."

Although this is a sensitive diplomatic issue, it is worth spelling out here. Member countries are united in their desire to stamp out IUU vessels from foreign fleets in the region. However, the perception from some members is that not all countries are equally committed to fulfilling their flag responsibilities when their vessels are fishing illegally in neighbouring waters. One commented, *"In some cases, a foreign country is successful in combating foreign IUU but not with their own domestic vessels. They never report on their own vessels fishing [illegally] in our waters"*. Sharing information such as, *"there are three of our vessels currently located in your waters"* is the kind of information sharing that some nations are wanting to see. In the absence of this kind of *ad hoc* information sharing, it is hard to imagine formal data-sharing occurring.

The importance of networking

There was a consensus among respondents that networking was the basis from which other initiatives flow, for example, *"we need to have better networking and more regular meetings"*. Specifically, the sub-regional groups are a key component of information sharing with respondents commenting, *"At the annual meeting in the Gulf of Thailand we used to share information and learn many things."* As described above, the ATS sub-regional group has continued to work closely in recent years, *"Information is shared between the countries at the Arafura sub-region level."* However, for the Gulf of Thailand (GOT) and Southern and Eastern Area of the South China Seas and Sulu-Sulawesi Seas (SCS/SSS) groups, the combined impact of COVID and a lack of funding has prevented meetings happening. This presents a significant barrier to closer collaboration and it was encouraging to hear at the CCM of the plans to support all three regional sub-groups meeting in 2023.

Incremental progress that provides practical benefits

Although there was an openness from all respondents for closer collaboration, including data-sharing, some interviewees cautioned about trying to move too fast with unrealistic

expectations. *"We need to think small steps, not giant strides"* argued one interviewee, before continuing, *"Voluntary information sharing would be the next step"*. Another expressed frustration about the lack of practical action towards information sharing and combating IUU fishing. They stated, *"We need more concrete action. This is more important. Practical solutions, concrete actions are what is needed. We have not looked back and evaluated what has happened since 2007."* Similarly, a respondent commented, *"I need reliable contact details for persons. If I need to talk with someone in AFMA, it is just a phone call away. No problem. We work together. But with other countries it is not happening. Here* [RPOA-IUU meetings] *we talk about cooperation and coordination but in practice, it is not happening. We don't even have reliable contact persons."* It is noteworthy that one respondent was expecting a formal data-sharing agreement along the lines of the VMS sharing that is happening in the Pacific Islands with the FFA. They stated, *"This system is working well in the Pacific and it is our expectation that we will have something similar for the RPOA-IUU."* However, they also recognised that some of the building blocks to move towards such an agreement are not in place yet.

Mutual understanding and use of terminology

Terminology can confuse, especially because many RPOA-IUU representatives are operating in English as their second language. The phrase 'data-sharing mechanism' provoked caution among certain respondents as they perceived this would be a formal, binding mechanism which would carry significant obligations. One interviewee commented, *"Information-sharing is a more collaborative approach. It does not include some of the obligations of formal data-sharing."* In a similar tone, during the 15th CCM there was some discussion about the word 'intelligence'. While some countries have fisheries inspectors collecting 'intelligence', other countries would only use this term for a specific branch of their police force. While different organisations use different terms to describe data/information sharing (ICO, 2021), the key thing is to choose clear terminology, agreed upon by all RPOA-IUU members that can be used freely without the risk of misinterpretation. Getting this right could avoid unnecessary misunderstanding and conflict.

Intelligence products/analytics are more valuable than just intelligence gathering

Several respondents were concerned about generating and sharing lots of data that were not necessarily valuable. They were concerned that this would absorb capacity and not necessarily add value. The types of information that they would like to be shared include; *"We would like to know when countries are rejecting or inspecting vessels." "We need actionable evidence - if you can use evidence to prosecute we would be interested in that."* One way ahead may be for RPOA-IUU members to work more closely on specific prosecution cases or surveillance operations, and build from this towards regional data sharing. This may help further build trust and capacity, alongside providing some 'quick wins'.

4.2.2 Four concerns of RPOA-IUU members

A lack of coordination between departments within some countries

Several countries reported that it was difficult to imagine data-sharing occurring _between_ countries when there was ineffective _within_-country data-sharing. They remarked that there were often overlapping jurisdictions and power plays between government agencies or between

central and regional bodies and that the fisheries management system as a whole lacked integration. Some respondents stated this as follows: *"When we are talking about data-sharing we have some different approaches between agencies. It is not open data sharing [between agencies]… the other agencies feel they are superior."*

Commitment is needed from the highest levels of government

Respondents argued that formal, regional data-sharing obligations would require commitment from the highest levels of government. One stated, *"When we talk about data, it has to be a high-level thing. You need to get approval from a much higher-level authority. That has to be endorsed by a minister for someone to release it. When we are talking about information it can be addressed at the operational level."* Another argued, *"Certainly bilateral agreements are possible and even multi-lateral data sharing is possible but it needs a higher ranking commitment. It should be put on the table of the high-ranking official. It cannot be discussed by the coordinators of the RPOA."* A further comment that was raised about barriers to regional data sharing was the ongoing boundary disputes in certain parts of SE Asia.

Difficult to admit failure

The RPOA-IUU spans countries with different political, economic and geographic contexts. Not only are there diverse fishing gears and species, but there is also considerable cultural diversity among RPOA-IUU members. Several respondents touched on this in different ways. While some wanted a thorough evaluation, *"We have not looked back and evaluated what has happened since 2007. We have to evaluate the best practises and bad practises… every country needs a seriousness and willingness to do this and* [we need to be] *committed and open to put what we are talking about into practical actions. We must not hide anything because we are a family."* Others argued that the fear of shame prevented AMS from admitting failure. For example, *"A few years ago there was a request for AMS to conduct a study on IUU. None of the AMS could collaborate - the reason was shame. AMS do not want to admit failure. I propose if you want to conduct a study you prepare the budget for an independent organisation/ NGO. If you ask us to do it ourselves that is not possible."* And again *"Certain countries are not willing to open up the books for scrutiny."* The RPOA-IUU needs to find ways to identify what is not working well, without alienating AMS in the process.

Concerns about duplication

ASEAN member states were aware of the AN-IUU and RFVR schemes and were concerned that data-sharing initiatives by the RPOA-IUU would duplicate these. Comments included, *"For the RPOA-IUU to recreate it [data sharing mechanism] and then for AMS to have to work with two different systems doesn't make sense"* and, *"We must be careful about duplication with other existing data sharing mechanisms"*. Although Timor-Leste is in the process of joining ASEAN, Australia and PNG are not members and do not have access to AN-IUU or the RFVR platforms. Ensuring that all RPOA-IUU members have access to these data-sharing mechanisms may allow the RPOA-IUU to complement rather than duplicate this work.

4.3 EXISTING MCS TRAINING.

In 2008 a commitment was made by "*the Secretariat of the RPOA-IUU to develop and distribute a draft curriculum for a coordinated training programme for consideration before the Coordination Committee meeting.*". The result of this was the MCS curriculum and training programme created by the Australian National Centre for Ocean Resources and Security[15] (2009).

In the years since the curriculum was designed, there have been MCS training and capacity building conducted by organisations such as FAO, SEAFDEC, Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the National Oceanic and Atmospheric Administration (NOAA). Countries have become signatories and begun to implement agreements such as PSMA and there has been more scrutiny from buyers of fish products. Indeed, the EU has successfully applied pressure through its red/yellow card system to lever governments in SE Asia (e.g. Thailand, Cambodia) towards responsible fisheries management. Implementing PSMA has helped countries to conduct audits of what MCS pieces are missing. For example, in PNG because fisheries cases are so rare there was an institutional gap in the capacity of judges. So, in 2021 they hosted a national fisheries judiciary conference and in April 2022 ran training for judges and magistrates on sentencing.

In recent years, CSIRO has conducted site visits to RPOA countries and DAFF designed an updated curriculum based on a needs analysis in those countries.

This accredited MCS training course includes the following areas:

1. Introduction to MCS
2. MCS legal and regulatory frameworks
3. Social issues of fishing in Southeast Asia
4. Fisheries Management
5. MCS tools
6. Data and MCS
7. Powers, roles and functions of fisheries officers
8. MCS operational activities
9. Occupational health and safety
10. MCS cooperation in Southeast Asia

The six-month course has been designed to give a good overview of the key issues and will be run in partnership with Nha Trang University, Vietnam. The course is also accompanied by three other initiatives from the Australian government:

Fisheries officer exchange program – Opportunities for two fisheries officers to spend up to a month visiting the agency of another country.

Targeted Capacity Building Support – A team of Australian technical experts is available to provide bespoke MCS training as requested.

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[15] https://www.apec.org/docs/default-source/satellite/apip/monitoring-control-and-surveillance-(mcs)-curriculum-and-training-programme.pdf?sfvrsn=c8e9cd66_2

SEA-RIFF Innovation Fund - The Southeast Asia Regional Innovation Fund for Fishing (SEA-RIFF) provides flexible funding to extend/scale up efforts to disrupt illegal fishing.

More details about the program are available on the DAFF website.[16]

4.4 EMERGING THEMES FROM KIIS AND FGDS: MCS TRAINING NEEDS

Key Informant Interviews and Focus Group Discussions with RPOA-IUU members found an eagerness for MCS training summed up neatly by one respondent, *"What I need the most is information on capacity building training. We want to join trainings. Learning experiences are the most important for us."*

The following nine MCS training needs were identified:

Data analysis

The most frequent request for capacity building among RPOA-IUU members is related to data analysis, specifically regarding VMS training. Members reported that although VMS has proved valuable to them, they have not fully unlocked its potential. One said, *"Right now our VMS is just tracking and monitoring".* Members are requesting analytical support so that they can identify what kinds of activities are occurring at sea. For example, *"[we need help with] in-depth analysis of vessel activities at sea. People to sit down alongside us and do some real analysis to identify whether transhipment at sea is occurring or bunkering".*

Again, *"[we need to know] how to analyse data from surveillance/monitoring based on technology e.g. VMS, AIS, FIRS, RADAR. How to conduct analyses in a detailed way that are valid and reliable, so that they can be used for enforcement. That is what is really needed. Because in the future the technology is only going to become more significant."*

Analysing data to prioritise enforcement activities

Analysing large quantities of data and prioritizing where to invest limited resources is a significant need for RPOA-IUU members. This relates to VMS data (above) but includes the decision-making process about how and where to use resources and deploy assets. It means having in place systems, processes and trained personnel that sift through large quantities of data.

"[This is] A gap in my team. I think we need some training in that area to give some guidance so it can give you information on how to prioritise. Analyse information in order to prioritise." Also, *"What would we do with that data? How would we improve the processes?"*

"We want to know what species is being caught and then we want to plan so we know when the foreign vessels [are entering our waters] *so we can plan our enforcement. So we know how much we can spend."*

Governance: The need for an integrated approach

Several countries expressed concerns about different government departments having overlapping jurisdictions and not always working together towards a common goal. This has

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[16] https://www.agriculture.gov.au/agriculture-land/fisheries/iuu/combating-iuu-fishing-program

implications at a governance/policy maker level but also means that operationally there can be confusion. For example:

"MCS is not fully aware and understood by fisheries officers. Different officers from different departments have different ideas! Each agency has their own interpretation. We don't fully understand about that. Sometimes we follow FAO, sometime Japan."

"The whole MCS approach, how to make it more efficient, effective, cost-effective. This would be useful for countries. What would a comprehensive MCS model look like?"

Port State Measures Agreement (PSMA)

Getting national legislation and implementation in line with PSMA was a priority for some RPOA-IUU members.

"Now I have a lot of problems with PSMA. You need to prepare the procedure for every work you are going to conduct. I have the FAO System but they ask me many questions – some of which I don't have the answer for!".

"Implementing PSMA, this is something that we are still fine-tuning. The process of the operations. We need training on boarding, inspection protocols and conducting investigations",

Conducting fisheries inspections

Ensuring that inspections are done in accordance with the law and are kept up-to-date with the latest approaches.

"ASEAN import inspections of fishing vessels. By and large in this region inspections are done to address licensing requirements. This is supposed to address fishing management. There are new techniques."

"Maybe another country is doing enforcement differently to us. We want to upskill our staff to know the best practise for enforcement operations."

Securing a prosecution

This included increasing the likelihood of securing a prosecution by correct evidence-gathering and storage techniques.

"What kind of evidence can be collected and should be collected?"

"How should officers arrest, collect and store evidence? We are not where we want to be yet"

MCS training conducted at different levels

Some respondents felt that while regional training was helpful, it would be most useful if MCS training were targeted at the specific needs of one country. These could even have components that addressed local needs in a particular area of that country.

"So far we got only capacity building for regional programs. These were not very effective at the national level. Training programs should have national level and regional level. That would be most useful for us."

Voluntary compliance

One respondent highlighted the role of fishers themselves in the process of combating IUU fishing both by being part of the surveillance system (for foreign vessels) or by encouraging registered vessels to take responsibility for compliance. They wanted to know, *"How to encourage fishers to take ownership?"*

Legal training

Capacity building for personnel involved in prosecution (e.g. lawyers, judges) was the final area of need identified by RPOA-IUU members. *"We need some training for our legal officers. They need capacity especially for lawyers in the department of fisheries to understand international agreements".*

The MCS training needs that RPOA-IUU members identified were compared with the MCS training curriculum developed by DAFF (Table 2). There is an encouraging amount of overlap between the needs identified by RPOA-IUU members and the content of the curriculum. Two further observations are helpful here.

Firstly, some of the governance issues will not be solved with fisheries officer training. There were strategic needs identified by RPOA-IUU members that fall outside the scope of the MCS training curriculum. Several countries identified a lack of coordination between government departments as an issue that was holding back effective, integrated governance.

Secondly, training needs to happen nationally and not regionally. There was a consensus in the FGDs that while information-sharing had to happen in the sub-regional groups collaboratively, MCS training was more profitable at the national level. Although there could be obvious efficiencies in trying to find the common training needs, and running regional training, RPOA-IUU member countries have individual needs and want training that targets where they are and that will be provided with translation in the native language of the recipients.

TABLE 2: TRAINING NEEDS IDENTIFIED BY RPOA-IUU MEMBERS COMPARED WITH MCS TRAINING CURRICULUM	
TRAINING NEED	**PRESENCE IN THE CURRICULUM / COMMENTS**
Data analysis – VMS	Module 4.4 - monitor vessel activities using VMS
Using data to prioritize	Module 5.3 - Explore technology and its role in understanding and informing MCS
An integrated approach to MCS	Potentially module 2 – MCS Legal and regulatory framework. However, this training course is targeted at fisheries officers rather than governance specialists/policy makers.
PSMA	Modules 2.1 & 7.2 - Identify international laws and legal instruments & Conduct a vessel boarding and inspection required under both domestic and international regulations (i.e. port State measures)
Fisheries inspections	Module 7.2 - Conduct a vessel boarding and inspection required under both domestic and international regulations (i.e. port State measures)
Securing prosecutions	Module 6.4 - Conduct an investigation
MCS training at the national level	Potentially module 2.4 - Identify national regulation, policy and obligations using country case-studies. However, this really needs training targeted for the needs of a country.
Voluntary compliance	Possibly module 1.4 - Describe compliance theory and behaviour.
Legal training for personnel involved in prosecutions	The MCS curriculum is targeted at fisheries officers rather than other legal personnel.

5. RECOMMENDATIONS/NEXT STEPS

In this section, a potential way forward towards closer information-sharing is proposed for the RPOA-IUU. These recommendations build on the findings but come with the same caveat as the FISH-I Africa report; that regional collaboration rarely moves forward in a linear direction but is characterised by trial and error, success and failure. For this reason, a jigsaw puzzle was chosen as the appropriate way to represent the process (Figure 4). This puzzle is made of nine pieces and the puzzle can be completed in a different order. Figures 5-7 describe what the pieces of the puzzle mean and arrange them in a linear order – using the example of the order in which a farmer would plant their crop. In Figure 8 the pieces are assembled in the order that the findings suggest they should go. This section is concluded with some final comments.
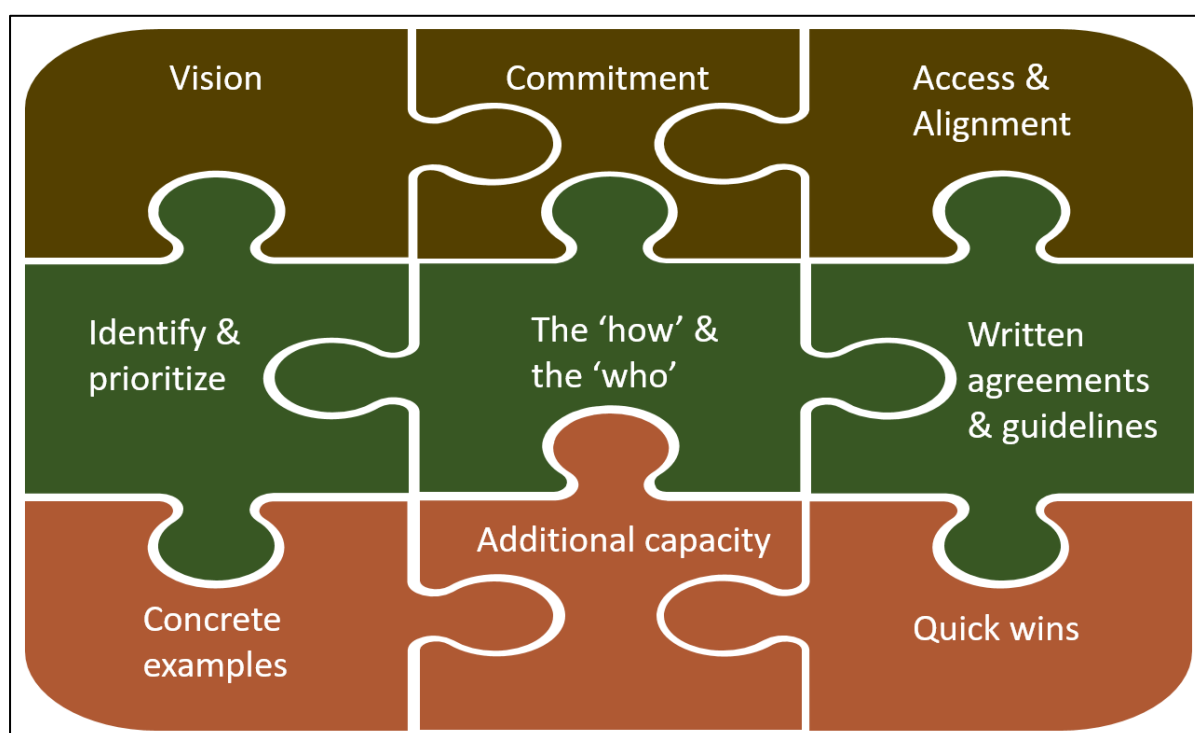

Figure 4 – The 'jigsaw puzzle' of pieces that need to be in place for collaborative information-sharing between RPOA-IUU members

5.1 PHASES OF INFORMATION SHARING

5.1.1 Phase 1: Preparation for information-sharing.

These three puzzle pieces are the preparation. Just as a farmer needs to clear the weeds and plough the soil before planting, these are the stages that should happen *if information-sharing was to proceed linearly.*

1. **Vision**. Every initiative needs to begin with a vision, with the desire to accomplish something (Figure 5). In this case, the big vision is to have well-managed fisheries and healthy ecosystems. Part of that vision is to eradicate IUU fishing, and a sub-part of that is the need for countries to work together, to collaborate in various ways, including through information-sharing. There are examples of regional information-sharing (e.g. FFA, FISH-I Africa) that should give confidence to RPOA-IUU members that this is a realistic, achievable vision.

2. **Commitment.** It is one thing to have a vision for what is possible, and quite another to commit to achieving it. Getting a regional information-sharing agreement in place will not be easy. There are several significant barriers, many of which have been described above. But none of these barriers is insurmountable if RPOA-IUU members are committed to information-sharing happening. The key question to ask is, what will motivate RPOA-IUU members to commit to this process (Figure 5)?

3. **Access and Alignment.** The resources of RPOA-IUU members are stretched. It would be a waste of time to duplicate what is happening at the regional/global level in ASEAN and from FAO. RPOA-IUU information-sharing needs to align with and support what other bodies are doing.
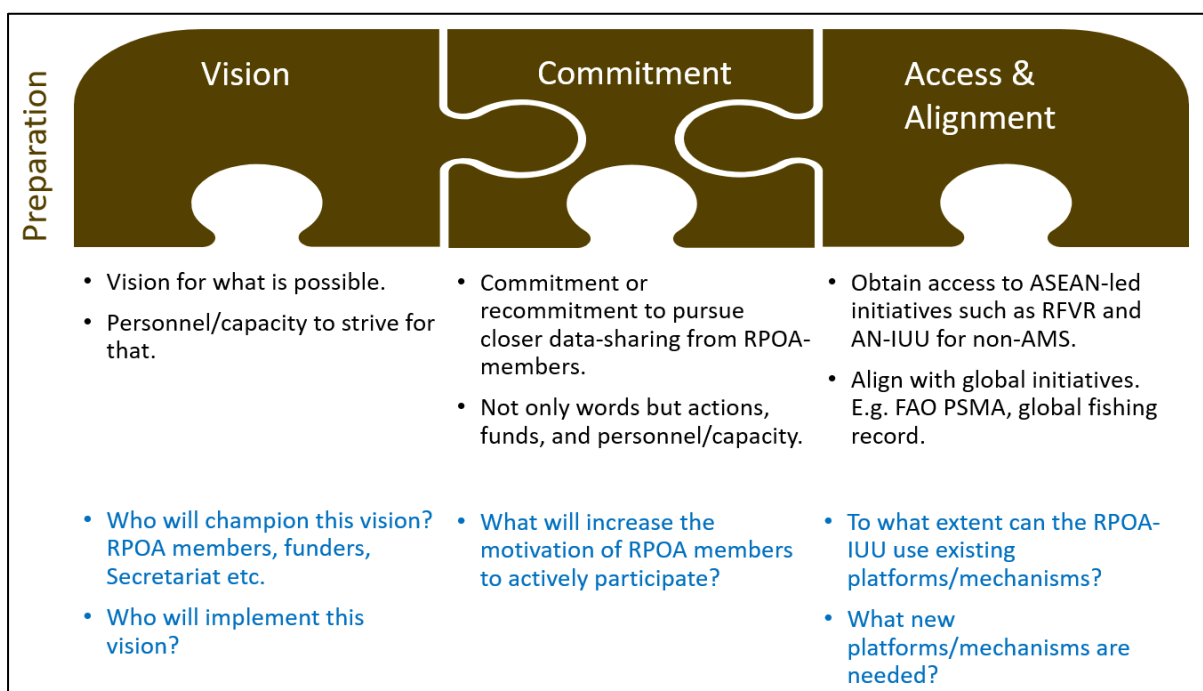

Figure 5 – The preparation phase for information-sharing. Text in black clarifies what the puzzle piece means/what is needed. Blue text is questions that RPOA-IUU members need to work through

5.1.2 Phase 2: 'Planting' for information-sharing.

These three puzzle pieces are key to turning the vision of the 'preparation' phase into reality. They are concerned with the practical aspects of how to implement an information-sharing agreement.

1. **Identify data/information and prioritize.** Having made sure to align with, and not duplicate, existing data-sharing activities by ASEAN/FAO, the next stage for RPOA-IUU members is to identify data that would be useful to share. Using criteria based on FISH-I Africa; 1. How easy it will be to obtain agreement, 2. How much it will cost and 3. the impact on IUU, RPOA-IUU members can prioritize information-sharing that is achievable, efficient and impactful towards combating IUU fishing.

2. **The 'how' and the 'who'.** This piece of the puzzle encompasses the technical aspects of information-sharing. What format will information be shared in? Who will be responsible for updating? What platform will be used? Although these technical aspects can be daunting for non-specialists, other regional bodies such as the FFA have systems in place that the RPOA-IUU can learn from.

3. **Written agreements and guidelines**. Having found technical solutions, the next step is to obtain written agreements and guidelines that clarify how this information will be stored and shared. Ultimately, these will need to be detailed documents such as the Information Security Management Policy[17] produced by the FFA. As an initial step in this direction, RPOA-IUU members who attended the FGDs in February 2023 have seen and commented on 'draft guiding principles for information-sharing' (Annex 4).
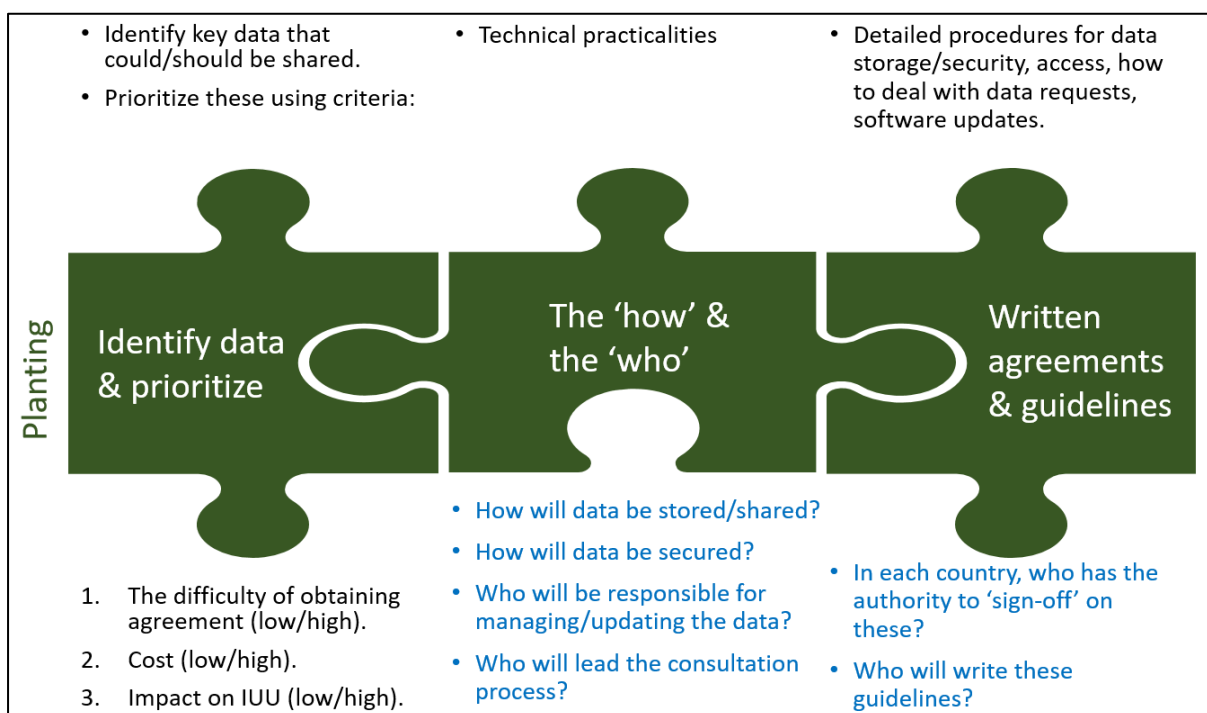

Figure 6 – The 'planting' phase for information-sharing outlines the practical aspects that need to be in place for an information-sharing agreement

5.1.3 Phase 3: Reaping the benefits of information-sharing.

No farmer goes to the effort of ploughing the soil and planting the seed unless they hope to be able to reap a good harvest. Similarly, it makes no sense for RPOA-IUU members to put in the time and effort to move towards an information-sharing agreement if they cannot hope to enjoy the fruits of their labour. The puzzle pieces in phase 3 clarify what those benefits will be.

1. **Concrete examples.** The KIIs with RPOA-IUU members, and with Allan Rahari from the FFA, repeatedly identified 'concrete steps' and 'tangible benefits' as a vital piece of information-sharing. These benefits can be; effective prosecutions, less wastage of resources/bureaucracy, real-time communication, better data analysis, access to data sets

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[17] https://www.ffa.int/isms-policy

beyond the scope of a low-income country, combined surveillance operations and fewer gaps/loopholes for IUU vessels to exploit.

2. **Additional capacity.** One of the potential benefits of collaboration is the additional capacity that can be brought in. In both of the regional examples (FFA/ FISH-I Africa), technical expertise has been brought in to support countries with, for example, securing prosecutions and data analysis. RPOA-IUU members have identified one of their training needs as conducting data analysis. Collaborating on information-sharing opens the possibility for member countries to access external, technical expertise and learn by working alongside other countries.

3. **Quick wins.** The final piece of the puzzle is quick wins, sometimes called low-hanging fruit. These are the benefits that be achieved quickly and encourage buy-in from members to keep on persevering. Given that not all RPOA-IUU members are equally enthusiastic about information-sharing, it is important to identify those members who do want to move forward and work with them to secure these quick wins. These can start as simple as each country supplying reliable focal points that are available in the event of an incursion. The FFA example shows how other countries may get involved when they see other countries benefiting from being involved.

- Demonstrate how the practical benefits of data-sharing exceed the costs.
- Partner with other institutions to obtain added-value and access expertise.
- Identify the achievable 'low-hanging fruit' in the short term.
- Succeed and communicate these success stories.

- How will data-sharing directly benefit a country?
- What partners can bring extra capacity? E.g. analysis (INTERPOL, GFW, TMT, Oceanmind)
- Are there 'quick wins' that can encourage buy-in to data-sharing? (Includes past examples and potential successes)

Harvesting

Concrete examples
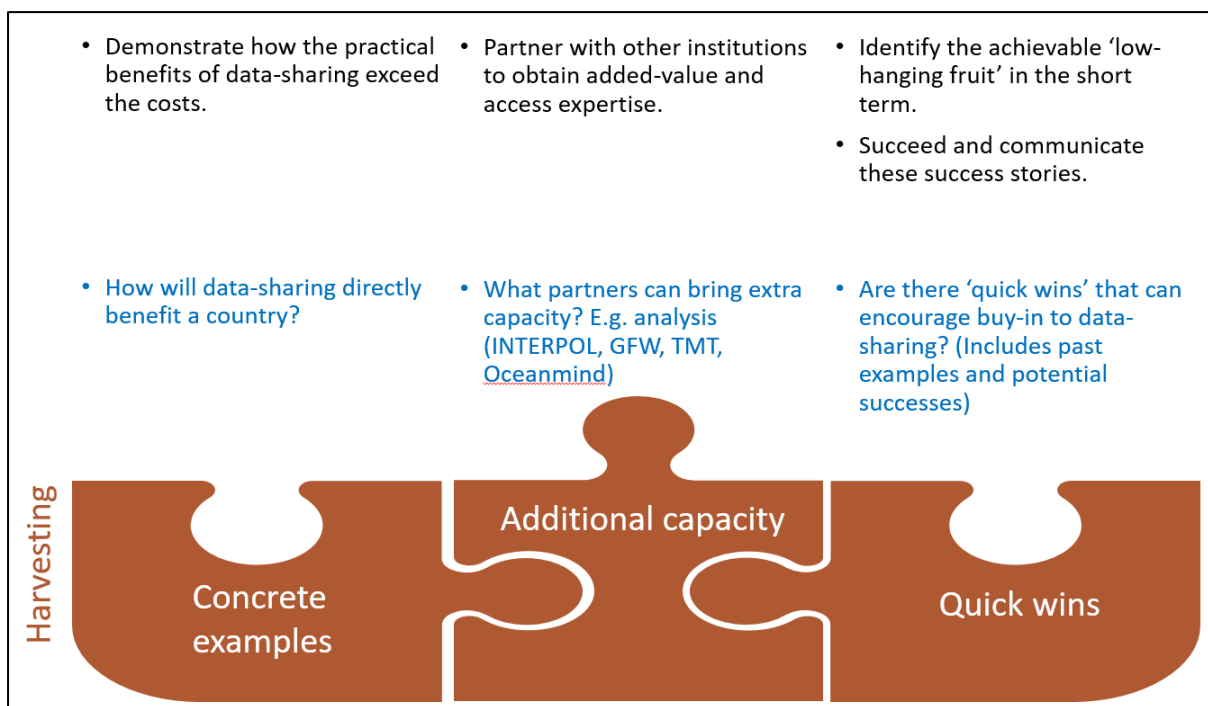
Additional capacity

Quick wins

Figure 7 – The 'harvesting' phase of information-sharing depicts the fruit of collaboration and the benefits that accrue from working together

5.2 INFORMATION-SHARING: PUTTING THE PUZZLE TOGETHER

While figures 5-7 depict a linear process for the RPOA-IUU to create an information-sharing agreement, the findings suggest that will not be the most effective order to move forward. To make tangible progress, encourage buy-in and not get 'bogged down' in the details, a different order is proposed (Figure 8).
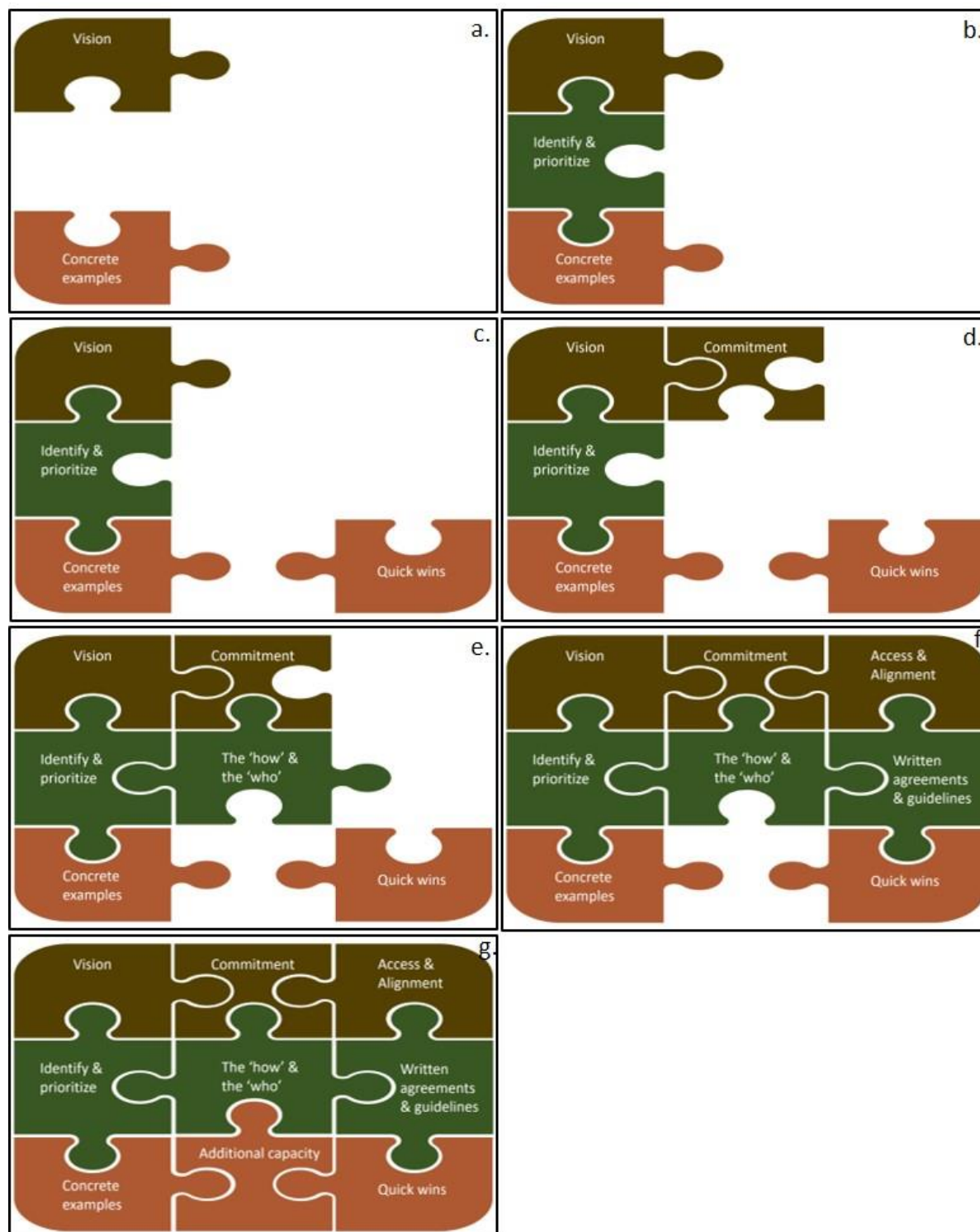

Figure 8 – Ordering the steps of a potential information-sharing agreement for the RPOA-IUU. Pieces are ordered alphabetically from a-g

In both the FGDs and KIIs, several RPOA-IUU members were not clear on what direction information-sharing was heading in and what benefits would be felt from it. In short, they were asking the question; how will information-sharing benefit RPOA-IUU members in combating IUU fishing? RPOA-IUU members need to be able to see that the benefits of collaboration outweigh the costs. So, the first step (Figure 8a.) is to agree on the vision and identify concrete examples from where members will benefit. Without this step, there is a risk that information-sharing will remain a good concept to be involved in but not something that RPOA-IUU members practically commit to.

Next (Figure 8b), RPOA-IUU members need to prioritise what information will be shared. But before they can do this, RPOA-IUU members have said that they want to understand the fisheries management contexts of the other countries in their sub-regional group better. In the FGDs, RPOA-IUU members requested information about other countries' legal frameworks, state of MCS implementation and willingness to share information. A table to collect this information has been sent to RPOA-IUU members to help facilitate this process (Annex 5). Once members understand one another's contexts, they can identify common issues in their sub-regional group and how information-sharing can help. Some of these need to be the quick wins (Figure 8c) that will build confidence in the process and the commitment piece of Figure 8d.

The commitment/quick wins phase will probably need several iterations. Some countries or sub-regional groups will have successful collaboration and move forward faster than others. Amongst the quick wins may also be failures - information-sharing activities which did not work as planned. It is important that trust is maintained and RPOA-IUU members are committed to trying again. Once members see the benefits and want to move towards more formal information-sharing agreements, the technical and policy stages of Figures 8e and 8f become important. Then as agreements are formalised, additional capacity can be brought in to improve data analysis and add value to RPOA-IUU members (Figure 8f).

5.3 MCS CURRICULUM AND TRAINING

The Australian Department of Agriculture, Fisheries and Forestry has created a curriculum based on needs analyses conducted by technical experts in RPOA-IUU countries. The curriculum provides an excellent overview of MCS for fisheries officers. It was not designed for policymakers and so does not address some of the governance issues that RPOA-IUU members identified, for example, different government departments within a country not working well together. It will not be an easy task to address these issues. Clarifying the jurisdiction of government departments, restructuring departments and reallocating resources could all be part of the solution. This would need high-level commitment and considerable political capital. Nonetheless, it is worth highlighting as a need of some countries and recognising that effective training of personnel may be of limited value if the whole MCS system is not working well.

As was discussed in the FGDs, RPOA-IUU members want the capacity building to be conducted at national/local levels rather than regionally. Financial support is available from the Australian government for targeted capacity building and each country needs to review what specific needs they have.

5.4 CONCLUDING COMMENTS

Within the overarching aim of the RPOA-IUU - well-managed fisheries with zero IUU fishing in the region – an information-sharing mechanism can be a significant part of the solution. If the pieces of the puzzle described above are in place, an effective information-sharing mechanism is an achievable objective for the RPOA-IUU. It will also require the following:

Prioritise the effective working of the regional sub-groups

It is easier to make progress at the regional sub-group level than for the region as a whole. At a sub-regional level, there are pre-existing good working relationships and much common ground. There is also a stated desire from members of the sub-regional groups to work closer together. Strengthening these sub-regional groups needs to be a priority for the RPOA-IUU. Sub-regional groups need to resume meeting together regularly, understand one another's legal context, share stock assessments and explore questions such as: Are there certain hotspots of IUU where joint surveillance operations are needed? Could staff be seconded to neighbouring countries to facilitate closer cooperation? How can countries share information in real-time about inspections/prosecutions? What funding streams are available that can support the sub-regional groups?

Raise the difficult issues and collaboratively seek solutions to these

There are some challenging political issues that the RPOA-IUU cannot solve but which inhibit closer cooperation. E.g. International boundary disputes. In these difficult cases, the best course of action may be to avoid discussing these and the conflict they may provoke in the RPOA-IUU. But other issues/sources of conflict must be discussed and need to be resolved for the RPOA-IUU to move forward. One example is that each RPOA-IUU member needs to take responsibility for their vessels fishing in neighbouring countries. This may include, sharing reliable contacts at the operational level, sharing vessel lists, VMS data, landing data from those vessels suspected of fishing in neighbouring waters, sharing inspection at sea reports and cooperating in surveillance operations. The sub-regional groups need to be in a place where countries can build trust, talk about these difficult issues and work together to find solutions to them.

Step-by-step mentality

Not all RPOA-IUU members are ready for formal information-sharing obligations. While some want to move towards a formal data-sharing agreement like the FFA, others are cautious or cannot see a clear way ahead. Yet crucially, all countries still want to be part of the process. The RPOA-IUU needs to recognise what is already being shared and build on that by identifying further opportunities to voluntarily share information on a case-by-case basis. It will take time, patience and perseverance but sharing best practices between the sub-regional groups will strengthen cohesion across the RPOA-IUU as a whole.

6. ANNEXES

ANNEX 1: RESOURCES USED IN DESK-BASED REVIEW

Afriansyah, A., *et al.,* 2021, Collaborative Surveillance Best Practises and Lessons Learned Against IUU Fishing. Report prepared for The Arafura and Timor Seas Ecosystem Action Phase 2 (ATSEA-2) Project. 36pp.

AMAF, 2020, Cooperation Framework On Asean Network for Combating Illegal, Unreported, Unregulated (IUU) Fishing. Final draft adopted by the 42nd AMAF 21 October 2020. 15 pp. Downloaded from: https://asean.org/wp-content/uploads/16.-Final-draft-CFTORROPANIUU-28ASWGFi.pdf.

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AN-IUU, 2020, Operation Manual AN-IUU Interactive Platform. 19pp. Downloaded from: https://an-iuu.fisheries.go.th

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ANNEX 2: PRELIMINARY INTERVIEWS

TABLE 3: LIST OF KII RESPONDENTS			
COUNTRY	**REPRESENTATIVE**	**JOB TITLE/INSTITUTION**	**DATE OF INTERVIEW**
AUSTRALIA	Brendan Rayner	Senior Manager, AFMA	08 Nov. 2022
	Paul Rickard	Manager, AFMA	08 Nov. 2022
	Jessica Ford	Senior Research Scientist, CSIRO	23 Nov. 2022
BRUNEI DARUSSALAM	Irwan Haji Mohammad Noor	Senior Fisheries Office, DOF	09 Nov. 2022
CAMBODIA	Roitana Buoy	Deputy Dir. Gen of fisheries administration, MAFF	14 Nov. 2022
	Chhuon Kimchhea	Deputy Dir. Gen of fisheries affairs, MAFF	
INDONESIA	Sahono Budianto	Deputy Director for fisheries investigation and law enforcement cooperation, MMAF	11 Jan. 2023
MALAYSIA	Bohari Bin Lng	Director of Fisheries, Conservation and Protection	09. Dec. 2022
	Nur Fadhlina Chan	Senior Fisheries Officer	
PAPUA NEW GUINEA	Gisa Komangin	Executive Manager, MCS, NFA	23/24. Nov. 2022
	Martina Ragagalo	Manager, Compliance and enforcement	
	Esmond Dalle	Senior Fishery Officer, NFA	
	David Karis	VMS Manager, NFA	
PHILIPPINES	Relly Garcia	OIC FRMD, BFAR	16. Dec. 2022
SINGAPORE	Lai Kim Low	Senior specialist, Singapore Food Agency	18 Nov. 2022
	Teh Kihua	Agri-Food and Veterinary Authority	
	Ting Ting	Singapore Food Agency	
THAILAND	Kawaiwanont Kamonpan	Marine and Fisheries Research and Development Division (MFRDD)	10 Nov. 2022
TIMOR LESTE	Pedro Antero Maria Rodrigues	Chief Department of Surveillance for Fisheries	11 Nov. 2022
VIETNAM	Nguyen Thi Trang Nhung	Deputy Director, Dep. Science Technology and International Cooperation	02. Des. 2022

Additional formal interviews were conducted with:

- Pattaratjit Kaewnuratchadasorn (Senior Policy Officer- SEAFDEC) and Kongpathai Saraphaivanich (Training and Information Section Head –SEAFDEC) on the 9th January 2023. Allan Rahari, Director of Fisheries Operations for the Pacific Islands Forum Fisheries Agency (FFA) on the 10th of January 2023.

Interview questions for RPOA-IUU preliminary interviews.

In 2021 RPOA-IUU participating countries agreed to; *"collaborate, either bilaterally or multilaterally, on data sharing and monitoring of fishing vessel movement and activities, including suspected IUU fishing in their waters."*[18]

This interview is a step towards that collaboration. Specifically, this interview explores the types of data that countries want to access and/or are willing to share and identifies concerns that member countries may have about sharing data. Results from these interviews will be used to propose a roadmap for creating a data-sharing mechanism.

Name/job title:

Date of interview:

Are you willing for your responses to be made available to other RPOA countries or would you prefer your responses to remain anonymous? Note: if at any time you wish to make an anonymous comment please inform the interviewer.

1. What data relating to IUU are currently being collected by your country?

2. Do you share these data with other partners/countries? Who? How?

3. What data would you like to have available for your own country?

4. What data collected by other RPOA countries would be valuable/useful for you?

5. What data would you be willing to share with other RPOA-IUU countries? What conditions/caveats would be important when sharing your data?

6. What data would you be concerned about sharing? Why? Describe those concerns.

7. Do you feel optimistic about the RPOA-IUU creating a data-sharing mechanism? Why?

8. How can you imagine the data-sharing mechanism working?

9. Any other comments/suggestions about the process for creating this data-sharing mechanism?

MCS:

- What are your main MCS training needs?
- Has there been an assessment of MCS capacity done internally? May I have a copy?
- Has then been an assessment of MCS capacity done externally? May I have a copy?

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[18] Annex 32. Section 4.1 of Workplan for 2022 agreed on the 14th RPOA IUU CCM, 13-15 December 2021.

ANNEX 3: FOCUS GROUP DISCUSSIONS

TABLE 4: LIST OF FGD ATTENDEES				
SUB-REGIONAL GROUP	**COUNTRY**	**REPRESENTATIVE**	**JOB TITLE/INSTITUTION**	**DATE OF FGD**
SOUTH CHINA SEA / SOUTH SULU SEA	Indonesia	Danang Wijayajati	Cooperation analyst, KKP	10 Feb. 2023
	Malaysia	Nur Fadhlina Chan	Fisheries Officer, DOF	
	Malaysia	Saufi Affandi Bin Talib	Fisheries offer, DOF	
	Malaysia	Mohamad Nur Hakim	Fisheries offer, DOF	
	Philippines	Michael Andayog	BFAR	
	Philippines	Rommel Adolf	BFAR	
GULF OF THAILAND	Cambodia	Roitana Buoy	Dep. Dir. Gen fish. admin, MAFF	13 Feb. 2023
	Cambodia	Chhuon Kimchhea	Deputy Dir. Gen fish affairs, MAFF	
	Malaysia	Nur Fadhlina Chan	Fisheries Officer, DOF	
	Thailand	Kawaiwanont Kamonpan	MFRDD	
	Vietnam	Nguyen Thi Trang Nhung	Dep. Dir. Dep. Science Technology and International Cooperation	
ARAFURA TIMOR SEA				TBC

FGD on ZOOM for the South China Sea / South Sulu Sea on 10ᵗʰ February 2023.
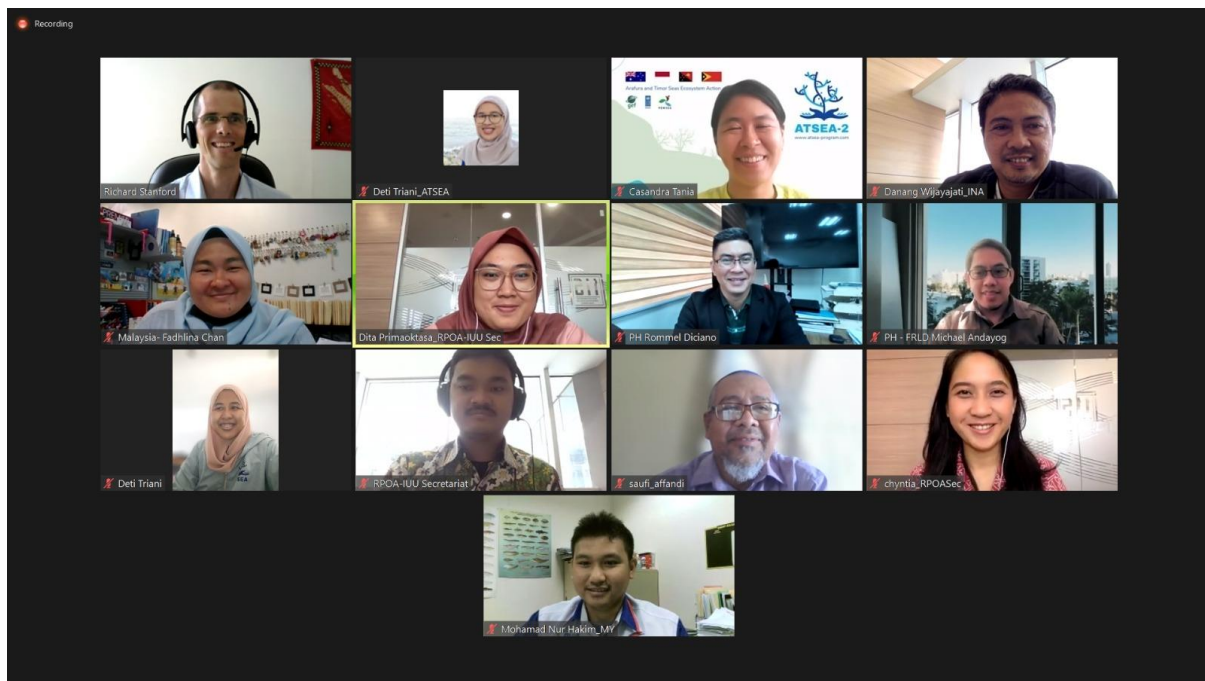
FGD on ZOOM for the Gulf of Thailand on 13ᵗʰ February 2023.
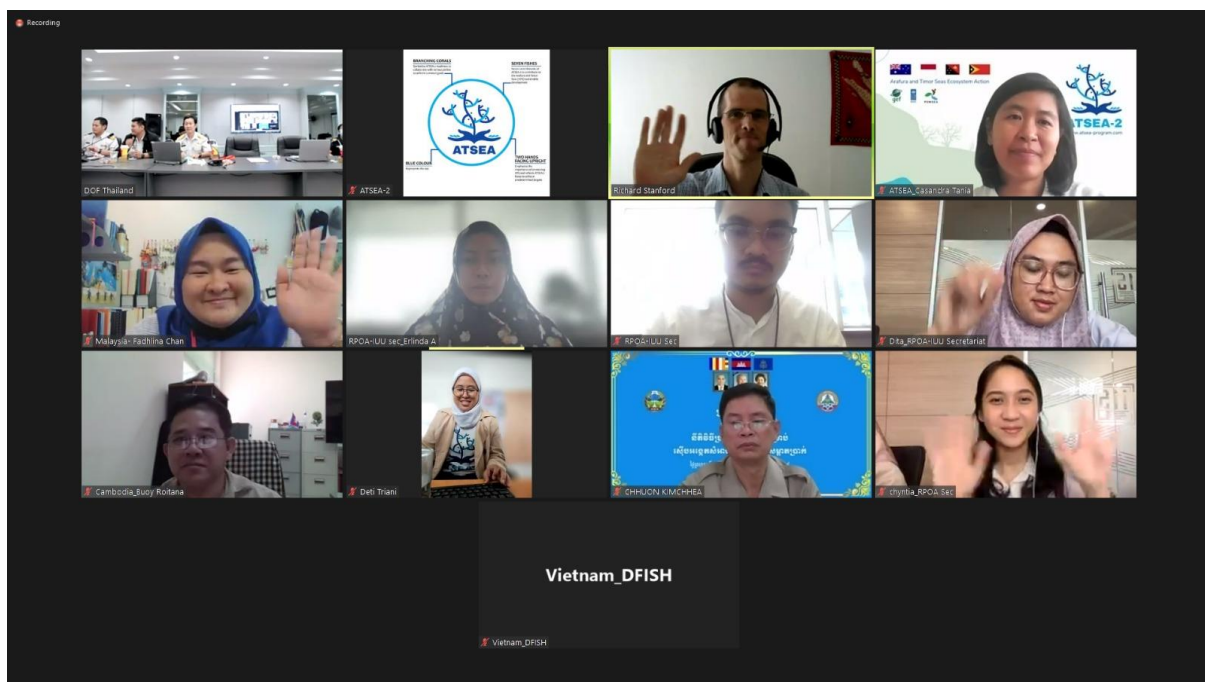
ANNEX 4: DRAFT GUIDING PRINCIPLES FOR INFORMATION SHARING

Because information-sharing can mean different things to different people, these guiding principles have been written to build confidence and buy-in from RPOA-IUU members. We invite your comments, corrections and additions.

1. Members own their data. They retain ownership of the data when data are shared with other members.
2. Data/information will be shared where members can see a benefit. Identifying what those benefits will be and why data-sharing can make a significant contribution is an important step for sub-regional groups.
3. RPOA-IUU members will begin with the data that can be shared most easily / is most valuable. This 'low-hanging fruit' will hopefully build trust and 'quick wins' for further collaboration.
4. Data/information sharing between members will always be accompanied by a written MOU which sets out the terms of sharing including such aspects as; the type of data, the duration of the agreement, what the data will be used for and how they will be processed/analysed, what security considerations accompany data-sharing and so on.
5. Data/information will never be shared with a third party without the consent of the member(s) who own the data.
6. Information-sharing initiatives conducted by the RPOA-IUU will not duplicate existing information-sharing by other regional /global bodies.
7. The RPOA-IUU will strive to use consistent terminology that is agreed upon by RPOA-IUU members.
8. There is an explicit recognition that members have different legal frameworks and are at different stages of implementation concerning MCS. Some members may be quicker to share data than others. Members will not be expected to share data that they are unwilling to share. Members who are unable to share data will continue to be fully part of the process. A country's inability/unwillingness to share data does not reflect its commitment to combat IUU fishing

ANNEX 5: BASELINE COUNTRY INFORMATION ON DATA COLLECTION (TEMPLATE)

Category	Specific	Data availability			Potential for sharing			Mechanism		Priority	
		Legal framework	State of implementation	Comments	Publically available	Willingness to share	Comments/ barriers	Global/ regional mechanism	Comments	Cost of sharing	Impact on IUU
Vessel registration & License	Vessel registry							FAO Global record of fishing vessels **or** RFVR			
	Beneficial ownership										
	License to fish										
Transhipment	Transhipment										
Vessel location	VMS										
	AIS										
	Others (aerial surveillance/ radar/ community groups)										
Catch Documentation Scheme	Location of catch										
	Unloading reports										
	Crew documentation										
Catch and effort data	Catch and effort data										
Port data	Inspections of vessels in port										
Intelligence alerts	VOI (Vessels of interest)							AN-IUU			
	POI (Persons of interest)										
Violations, Prosecutions, sanctions	Violations, Prosecutions, sanctions							AN-IUU			

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