

REPORT

The Regional Workshop on Monitoring Control and Surveillance for Combating IUU Fishing in Southeast Asia

Chonburi Province, Thailand 23-24 August 2022

Training Department

TD/RP/219 November 2022

REPORT OF

THE REGIONAL WORKSHOP ON MONITORING CONTROL AND SURVEILLANCE FOR COMBATING IUU FISHING IN SOUTHEAST ASIA

23-24 August 2022

Chonburi Province, Thailand

TRAINING DEPARTMENT

SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER

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Report of

The Regional Workshop on Monitoring Control and Surveillance for Combating IUU Fishing in Southeast Asia

23-24 August 2022

Chonburi Province, Thailand

I. INTRODUCTION

1. The Regional Workshop on Monitoring Control and Surveillance for Combating IUU Fishing in Southeast Asia was organized on 23-24 August 2022 by SEAFDEC Training Department (SEAFDEC/TD) in Chonburi Province, Thailand. Eighteen (18) participants from SEAFDEC Member Countries joined this regional workshop including Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, and Viet Nam. The list of participants appears in **Annex 1**.

II. OPENING OF THE REGIONAL WORKSHOP

2. The Opening remarks were delivered by *Ms. Malinee Smithritthee*, Secretary-General of SEAFDEC. She mentioned that during the decades, combating Illegal, Unreported, and Unregulated (IUU) fishing is one of the serious global problems leading to the main obstructions to the achievement of sustainable fisheries management. One of the limiting factors in overcoming IUU fishing is the lack of adequate human and institutional capacity in the area of monitoring, control, and surveillance (MCS). This regional workshop aims to strengthen MCS implementation for ASEAN fisheries officers. She also thanks all the invited speakers from AFMA, AN-IUU, CCAMLR, FAO, IMCS Network, IOTC, RPOA-IUU, and SIOFA for good cooperation and sharing in the regional workshop. Her opening remarks as **Annex 2**.

III. INTRODUCTION AND OBJECTIVE OF THE REGIONAL WORKSHOP

The Introduction, Objective, and Agenda of this regional workshop were presented by Mr. Kongpathai Saraphaivanich, a person responsible for SEAFDEC combating IUU project. The objectives are to share and update the information on MCS implementation activities to combat IUU fishing, enhance and promote fisheries management tools for combating IUU fishing such as RFVR, eACDS, and identify the need for capacity building on MCS for combating IUU fishing as appears in **Annex 3**.

IV. INTERNATIONAL AND REGIONAL IMPLEMENTATION OF MCS

Australia Fisheries Management Authority (AFMA)

3. Mr. Brandan Rayner, Senior Manager, from AFMA presented the title of "Australia Implementation of MCS Frameworks". His presentation focused on key areas of responsibility including Australian fishing vessels in the Australian Fishing Zone, Australian fishing vessels and Australian nationals operating internationally, and foreign fishing vessels operating illegally in the Australian Fishing Zone.

4. AFMA informed on the MCS for domestic licensed vessels is a risk-based intelligence-driven targeted compliance program, fisheries observers, aerial surveillance, port inspections, covert observations, Vessel Monitoring System (VMS), Electronic Monitoring (EM) System, logbooks, quota-controlled fisheries, and input controlled fisheries (fishing gear restrictions and spatial and seasonal closures). AFMA explained on the data of the Vessel Monitoring System (VMS) is used for a range of purposes including catch and effort analysis (fisheries management), real-time tracking of boats for inspection and enforcement purposes, automated alerting/notification systems for operators, and

monitoring compliance with fisheries closures. And the Electronic Monitoring (EM) data is used primarily for three (3) purposes including ensuring/verifying/improving the accuracy of logbook data, recording and identifying Threatened, Endangered, and Protected species interactions, and ensuring compliance with bycatch reduction requirements.

5. Australia's port permit process, port permit approval, Australia and the PSMA frameworks that AFMA is a client of the Civil Maritime Surveillance program coordinated by Maritime Border Command (MBC) and AFMA are the lead agency on all incidents involving foreign fishing vessels, strategies to address IUU fishing, interagency cooperation. The presentation appears in **Annex 4**.

ASEAN Network for Combating IUU Fishing (AN-IUU)

6. Mr. Thira Rodchevid, Fishery Biologist, Practitioner level, from the Department of Fisheries, Thailand presented the title of "AN-IUU Interactive Platform". The AN-IUU developed a platform for both effective information sharing and an operational network that enables easy and effective communication among national authorities in ASEAN Member States (AMSs) and is located in the Department of Fisheries, Bangkok, Thailand.

7. The status of the AN-IUU interactive platform was developed, established, and introduced to AMSs. The username and password were required to access the platform that was already provided to focal points.

8. In the next step, the guidelines will be endorsed during SSOM-AMAF (August 2022) and AMAF, respectively for further actions on implementing of AN-IUU interactive platform. This platform is a key tool to enhance and strengthen the exchange of related IUU activities information among AMSs to combat IUU fishing in the Southeast Asian Region. The presentation appears in **Annex 5**.

Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)

9. Mr. Todd Dubois, Fisheries Monitoring and Compliance Manager, from CCAMLR Secretariat presented the title of "MCS Measures to Combat IUU Fishing in CCAMLR". CCAMLR is committed to working with non-contracting parties (including Flag States, Port States, Trading States, and Harvesting States) engaged in the harvest and trade of toothfish and has cooperated to address IUU with INTERPOL, International MCS Network, RPOA-IUU, and other Regional Fisheries Bodies (SIOFA, WCPFC, SPFRMO, etc.). There are four species currently fished in Antarctica including Patagonian toothfish (*Dissostichus eleginoides*), Antarctic toothfish (*Dissostichus mawsoni*), Mackerel icefish (*Champsocephalus gunnari*), and Antarctic krill (*Euphausia superba*) as well as Crab (*Lithodidae* spp.) were managed by CCAMLR.

10. CCAMLR has been implementing the primary compliance monitoring tools as the Vessel Monitoring System in the Convention Area, inspections at the port and at sea by CCAMLR's System of Inspection (SOI), Catch Documentation Scheme (CDS) which is implemented to track toothfish from the point of landing throughout the trade cycle and seeks to encompass all toothfish landed and traded by participating States. Moreover, additional data sources to monitor the vessel include Vessel Catch Reporting, Transshipment Reports, Vessel Movement Reports, Scientific Observer Reports (SISO), and open-source and/or subscription sources was conducted by CCAMLR. The presentation appears in **Annex 6**.

Food and Agriculture Organization of the United Nation (FAO)

11. Dr. Matthew Camillera, Leader of Fisheries Global and Regional Processes and Secretary of Agreement on Port State Measures, from FAO presented the title of "Monitoring, Control, and Surveillance (MCS) to Support the Implementation of International Instruments". His presentation focused on international instruments and guidelines related to the Code such as 1982 United Nations Convention on the Law of the Sea (UNCLOS), 1992 FAO Compliance Agreement, 1995 Code of

Conduct for Responsible Fisheries, 1995 United Nations Fish Stock Agreement, 2009 FAO Agreement on Port State Measures and meaning of Monitoring, Control, and Surveillance (MCS) and Enforcement.

12. The representative from FAO explained the essentials of MCS such as maintaining records of fishing vessels, owners, and operators, using monitoring tools such as VMS, logbooks/documentation, and observers, acquiring, storing, and disseminating MCS data, implementing surveillance and inspection regimes, implementing an effective enforcement regime supported by a robust operational and legal framework, developing and implementing MCS schemes for access to waters and resources, including authorization, implementing applicable catch documentation and traceability schemes, and training and educating all persons involved in MCS operations. Moreover, he also explained the example of MCS including data collection which informs regulatory and management measures, administrative procedures including fleet register, authorizations, permits, and licenses, monitoring and surveillance technology and equipment, and controls and verifications.

13. In addition, capacity development for combating IUU fishing through cooperation and information exchange at national and regional levels is a challenge for effective MCS implementation. In this regard, the PSMA Global Information Exchange System was presented in this regional workshop. The presentation appears in **Annex 7**.

International MCS Network (IMCS Network)

14. Mr. Damian Johnson, Senior MCS Specialist, from IMCS Network presented the title of "Implementation of MCS in IMCS Network". IMCS Network is an intergovernmental organization, an informal and voluntary network that seeks to promote and facilitate cooperation and coordination in the fight against IUU fishing through collaboration, information exchange, and capacity development. The Network members include fisheries law enforcement professionals from more than seventy (70) national fisheries administrations and regional fisheries organizations. The mission is to promote and facilitate cooperation and coordination of the members of the Network through information exchange, capacity development, and joint work to achieve the improved effectiveness of monitoring, control, and surveillance activities.

15. The presentation outlined some of the emerging MCS opportunities, including the rapid technological development and application to fisheries MCS, particularly in the areas of electronic monitoring, remote sensing, data analytics and the application of machine learning. But the rapid technological advancement can also create challenges for MCS practitioners, especially in trying to keep up with new developments and deciding which tools to use and how to best use these tools to support more effective MCS. The presentation also highlighted the continued growth in MCS collaboration and cooperation at the national, regional and international levels that is promoting greater access to information and intelligence which is vital to support effective and targeted fisheries MCS.

16. He also introduced Joint Analytical Cell (JAC), a collaborative initiative that seeks to foster cooperation among State and non-State partners to strengthen the access to data analytics tools, technology platforms and actionable intelligence to support more effective fisheries MCS. The JAC, provides authorities with fisheries intelligence, data analysis, and capacity building to help combat illegal, unreported, and unregulated fishing. Founded by the IMCS Network, Global Fishing Watch, and TM-Tracking, the JAC harnesses innovative technology and the complementary expertise of its collaborating organizations to improve the effectiveness of fisheries MCS undertaken by State and regional partners. The presentation concluded by reminding attendees of the upcoming Global Fisheries Enforcement Training Workshop in Halifax, Nova Scotia, Canada in 2023 and encouraged SEAFDEC and ASEAN State participation in the workshop. The presentation appears in **Annex 8**.

Indian Ocean Tuna Commission (IOTC)

17. Mr. Gerard Domingue, Compliance Manager, from Secretariat of the IOTC presented the title "Implementation of MCS in IOTC". IOTC is an inter-governmental organization which was established in 1996, and became operational in 1998. The IOTC mandate is to sustainably manage tuna and tunalike species in the Indian Ocean and adjacent seas. The IOTC Secretariat is in the Seychelles. There are currently thirty (30) contracting parties and one cooperating non-contracting party.

18. The potential IUU fishing issues which were highlighted by the presentation related to prefishing (a misreported vessel or fishing gears and VMS dysfunctional), fishing (fishing without a flag or authorization, illegal fishing such as gears, FADs, and protected species), transshipping and landing (transshipping to unauthorized vessels, transshipping or landing IUU catch) and post-harvest (buying IUU catch and marketing illegal catch). The presentation also highlighted initiatives to improve the measure related to the Vessel Monitoring System (VMS), and development of measures related to an IOTC Catch Documentation Scheme (CDS), and an IOTC High Seas Boarding and Inspection Scheme (HSBIS) to combat IUU fishing. The presentation appears in **Annex 9**.

Regional Plan of Action to Promote Responsible Fishing Practices including Combating IUU Fishing in the Region (RPOA-IUU)

19. Mr. Eko Rudianto, Vice Executive Director, from RPOA-IUU Secretariat presented the title "Implementation of MCS in RPOA-IUU". RPOA-IUU is agreed upon in 2007 by eleven (11) Ministers (Australia, Brunei Darussalam, Cambodia, Indonesia, Malaysia, Papua New Guinea, Philippines, Singapore, Thailand, Timor-Leste, and Viet Nam) related to fisheries and is a voluntary regional initiative in which each participating country has a role in the implementation of the commitment to responsible fishing practices including combating IUU fishing.

20. RPOA-IUU MCS status, the RPOA-IUU completed developing the Regional Guideline on Responsible Fisheries to Combat IUU Fishing, MCS Capacity Building Program from the Australian Government, and a new technical support program from USAID Asia-TS. And the PPOA-IUU has implemented the MCS activities or project components in RPOA-IUU sub-regional working groups including the Gulf of Thailand, Southern and Eastern Areas on the South China Seas and the Sulu-Sulawesi Seas, and the Arafura and Timor Seas.

21. RPOA-IUU conducted the gap analysis on MCS components in the international instrument including FAO CCRF, IPOA-IUU, UNCLOS, and 1995 UNFSA which found the possible MCS implementation in RPOA-IUU to enhance RPOA-IUU MCS Sub-Regional Working Group coordination and cooperation. The presentation appears in **Annex 10**.

SEAFDEC Secretariat

22. Dr. Worawit Wanchana, Policy and Program Coordinator, from SEAFDEC Secretariat presented the title "Cooperations to Enhance the Implementation of MCS in Southeast Asia". His presentation focused on the regional program and activities that SEAFDEC has implemented in over a decade as the regional approach for a better understanding of current situations in fisheries management, being aware of IUU fishing, its impacts, challenges, and links with other activities, reviewing the main aspects of fisheries monitoring, control, and surveillance systems and their application, identifying the role of enforcement and its critical components, learning about international frameworks of binding and non-binding instruments and mechanisms and the policy, legal and institutional frameworks which underpin efforts to prevent, deter and eliminate IUU fishing and contribute to sustainable fisheries, and establishing network with professionals from other countries and share knowledge on recent trends, issues, and challenges in fisheries monitoring, control, and surveillance.

23. The regional program/activities on MCS and combating IUU were informed at the regional meeting including regional initiatives and platforms which to exchange views, issues, and concerns to

manage fisheries, joint fisheries management plans in regional and sub-regional waters in Southeast Asia, and set of technical references to support fisheries management and SEAFDEC has established several training courses for enhancing the capacity building to Member Countries such as fisheries management (MCS, IUU fishing, PSM, eACDS, RFVR, EAFM, gender in fisheries, *etc.*), stock assessment, fisheries taxonomy and fish larvae, and fishing gear and vessels technologies/innovations. Moreover, SEAFDEC informed the identification of information including fisheries resources, fishing gear, vessels, and ports, fisheries laws/regulations, and others to be shared with Member Countries through the regional platform (as appears in **Annex 11**).

Southern Indian Ocean Fisheries Agreement (SIOFA)

24. Mr. Pierre Peries from SIOFA presented the title "Implementation of MCS in SIOFA". The Southern Indian Ocean Fisheries Agreement (SIOFA) was signed in Rome the July 2006 and entered into force in June 2012. To date, SIOFA has ten (10) Contracting Parties (Australia, China, the Cook Islands, the European Union, France on behalf of its Indian Ocean Territories, Japan, the Republic of Korea, Mauritius, Seychelles, and Thailand), one Participating fishing entity (Chinese Taipei), and two (2) cooperating non-Contracting Parties (Comoros and India. Kenya, Madagascar, Mozambique, and New Zealand) are also signatories to this Agreement but have not ratified it. Its mission is the long-term conservation of fisheries resources and the protection of vulnerable benthic ecosystems on the high seas. SIOFA has been to manage the deep-sea seamounts and ridges species, tropical shallower demersal species, and oil fish which have an average annual catch of about 20,000 tons.

25. SIOFA has MCS procedures which are driven by SIOFA Conservation and Management Measures (CMM) including vessel authorization, listing of IUU vessels, port inspection scheme, control of fishing activities, monitoring of fisheries, and high-sea boarding and inspection procedures. The presentation appears in **Annex 12**.

V. IMPLEMENTATION OF MCS IN ASEAN MEMBER STATES

26. The representative from Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, and Viet Nam presented the title "Implementation of Monitoring Control and Surveillance in ASEAN Member Countries". The presentation focused on the implementation related to MCS in countries (such as activities, tools, initiation technology, etc.), obstacles, challenges, suggestions, and lessons learned from MCS implementation in their country (as **Annex 13-21**).

VI. ENHANCEMENT AND PROMOTION SEAFDEC FISHERIES MANAGEMENT TOOLS FOR COMBATING IUU FISHING

27. Mr. Kongpathai Saraphaivanich, a person responsible for SEAFDEC combating IUU project, presented the title "Enhancement and Promotion SEAFDEC Fisheries Management Tools for Combating IUU Fishing". His presentation was focused SEAFDEC initiatives toward combating IUU fishing including ASEAN Guidelines for Preventing the Entry of IUU Fish and Fishery Product into the Supply Chain, Traceability of Fish and Fishery Products from Fishing to Plate as electronic ASEAN Catch Documentation Scheme: eACDS, Regional Coordination to Support Implementation of Port State Measures, and Monitoring Control and Surveillance in Sub-regional/bilateral cooperation and RPOA-Capacity as appearing in **Annex 22**.

VII.	GROUP DISCUSSION ON OBSTACLES AND CHALLENGES OF MCS IMPLEMENTATION AND IDENTIFICATION NEEDS OF MCS
APA	CAPACITY BUILDING

The group discussion was conducted by separating participants into two groups. The first group discussed the topic of obstacles and challenges of MCS implementation. The second group discussed the topic of identification needs of MCS capacity building. The results of the discussion are as follows.

Obstacles and Challenges of MCS Implementation

MCS Implementation/ activities Budget/Finance to conduct MCS activities such as E-logbook, in each AMS.	Obstacles and Challenges Limited budget Budget Adjustment due to COVID-19 pandemic 	Support activities Find some donors (Australia, USA, Norway) to support the PSMA implementation - Innovation Fund from SEA IUU Fishing	Requested by country - AMSs
		 program supported by Australia EU delegation for support MCS or combating IUU fishing Norway (Norad) USAID 	
A sufficient number of MCS staff	- Limited the number of MCS staff	 Japanese Trust Fund Government should recruit MCS staff AMS request FAO, SEAFDEC, NGO, and other 	- AMSs

MCS Implementation/ activities	Obstacles and Challenges	Support activities	Requested by country
		recommendation to your country	
The skill of human resources	 Lack of understanding of the overview of MCS Lack of the MCS skills Limitations of information on MCS activities on Inland Fisheries 	 encourage countries to join regional organizations such as RPOA-IUU or some regional organizations to engage and seek potential funding. Improve the skill of staff via training and workshop by SEAFDEC 	- AMSs Potential Inputs: Training of Trainers for each AMS.
Technology/Tools	 Lack of appropriate equipment such as VMS Limited skill of fishermen to understand/use the mobile device High cost for fishermen and government 	 Training for fishermen Government assistant and support 	- AMSs
Law and regulation	 Lack of enforcing the law and regulation Lack of collaboration with several agencies Lack of harmonized SOP between inter-agencies 	- MOU and MOA among inter-agencies	- AMSs

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No.	Capacity Needs	Timeframe (Immediately, Long term)	Responsible Agency	Requested by country
1	Technical assistance on NPOA capacity	Immediately	SEAFDEC etc.	Hd
7	Capacity building on the e-traceability such as e-logbook, eACDS, <i>etc</i> .	Immediately	SEAFDEC, CCALMR, IOTC, Brunei Darussalam, Development Partner	PH, ID, MY, MM, VN
ю	Training on risk analysis of the pattern of fishing operation in each fishing gear by using VMS and AIS	Long term	SEAFDEC, CAPFISH Project, IMCS, MRC	AMSs
4	Technical assistance with scientific data collection, stock assessment, and research survey for marine resources	Long term	SEAFDEC, CCALMR, DA- NFRDI (Department of Agriculture - National Fisheries Research and Development Institute (PH)), Biofish Center, WWF	MM, LA
Ś	 Sharing information on port inspection Training on Inspection for foreign flag vessels (PSMA) 	Immediately	SEAFDEC, CAPFISH Project, IOTC, NOAA, WCPFC	AMSs
9	Fisheries intelligence/technology/application with notification such as VMS, AIS, other new technology, <i>etc.</i> for surveillance and MCS integration	Immediately	SEAFDEC, NOAA, DOF-TH, etc.	ID, MM, VN, PH, BN, CM, MY

VIII. CLOSING OF THE REGIONAL WORKSHOP

The regional workshop was closed by *Ms. Malinee Smithritthee*, Secretary-General of SEAFDEC. She extended her sincere gratitude and appreciation to resource persons as well as to the representatives from the ASEAN Member States for sharing the updated information and progress of MCS implementation activities for combating IUU fishing at various levels through sharing information in group discussion are indeed highly valuable for combating IUU fishing in our region. This regional workshop would serve as a good opportunity for participants to think of ways forward for combating IUU fishing in Southeast Asia. She expressed her appreciation to everyone for their active contribution and looks forward to enhancing the close cooperation among relevant stakeholders including the ASEAN Member States, and relevant international/regional organizations, for the betterment of fisheries in Southeast Asia in the future. Her closing remarks as **Annex 23**.

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OPENING REMARKS

Ms. Malinee Smithrithee SEAFDEC Secretary-General

The Regional Workshop on Monitoring Control and Surveillance for Combating IUU Fishing in Southeast Asia 23-24 August 2022 Pattaya, Chonburi Province, Thailand

All speakers from the international and regional organization, distinguished delegates from the ASEAN Member States, Ladies, and Gentlemen good morning. It is my great pleasure to welcome everyone to "The Regional Workshop on Monitoring Control and Surveillance (MCS) for Combating IUU Fishing in Southeast Asia"

During the decades, combating Illegal, Unreported, and Unregulated (IUU) fishing is one of the serious global problems leading to the main obstructions to the achievement to the sustainable fisheries management.

One of the limiting factors in overcoming IUU fishing is lack of adequate human and institutional capacity in the area of monitoring, control, and surveillance (MCS). This regional workshop is aimed to strengthen the implementation of MCS for ASEAN fisheries officers. SEAFDEC would like to thank all the invited speakers from AFMA, AN-IUU, CCAMLR, FAO, IMCS Network, IOTC, RPOA-IUU, SEAFDEC, and SIOFA for your support in sharing and updating your knowledges and experiences with us during this workshop. I thank for all participants from AMSs for your participation during this workshop.

I am looking forward to hearing all the presentation information and SEAFDEC will use the information to develop project and program in response to the needs of AMSs. With that, Ladies and Gentlemen, I am pleased to declare this Workshop open. Have a good day!

AGENDA 2 INTRODUCTION AND OBJECTIVE OF THE REGIONAL WORKSHOP ON MONITORING CONTROL AND SURVEILLANCE FOR COMBATING IUU FISHING IN SOUTHEAST ASIA 23-24 AUGUST 2022 PATTAYA, CHONBURI, THAILAND

OBJECTIVES

1. To share and update the information on MCS implementation activities to combat IUU fishing

2. To enhance and promote fisheries management tools for combating IUU fishing such as RFVR, eACDS

3. To identify the need for capacity building on MCS for combating IUU fishing

EXPECTED OUTPUTS

1. Updated information on MCS implementation activities to combat IUU fishing among AMSs

2. Understanding fisheries management tools for combating IUU fishing

3. Capacity building needs on relevant MCS for combating IUU fishing

AGENDA

23 August 2022 (Tuesday)

Agenda 1: Opening of the Workshop

Agenda 2: Introduction and Objectives of the Workshop/ Adoption of the Agenda

Agenda 3: International and Regional Implementation of MCS (20 minutes/ organization)

AFMA	
AN-IUU	
CCANALD	
CCAMLR	

FAO IMCS

- IOTC RPOA-IUU
- SEAFDEC SIOFA

AGENDA

23 August 2022 (Tuesday)

Agenda 4: Implementation of MCS in AMSs (20 minutes/ country)

- Brunei Darussalam
- Cambodia Indonesia
- Lao PDR
- Malaysia Philippines

AGENDA

24 August 2022 (Wednesday)

Agenda 4: Implementation of MCS in AMSs (20 minutes/ country)

- ThailandViet Nam

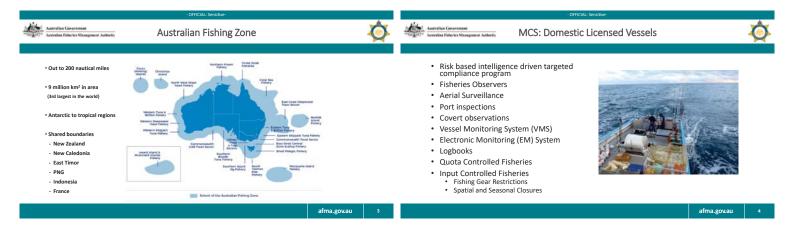
Agenda 5: Enhancement and Promotion SEAFDEC Fisheries Management Tools for Combating IUU Fishing

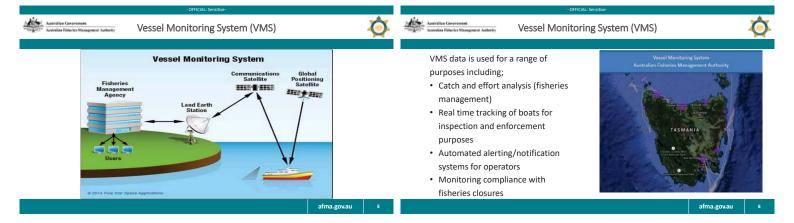
Agenda 6: Group Discussion and Report

- Obstacles and Challenges of MCS implementation
 Identification Needs of MCS Capacity Building

Agenda 7: Closing of the Workshop

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Australia Implementation of MCS Frameworks Brendan Rayner Senior Manager Foreign Operations AFMA August2022 Brendan.rayner@afma.goxau		 Key Areas of Responsibility: Australian fishing vessels in the AFZ Australian fishing vessels and Australian nationals operating internationally Foreign fishing vessels operating illegally in the AFZ 	
afma.gov.au	1		afma.gov.au 2

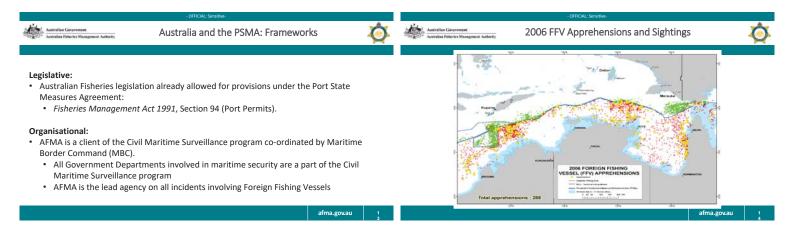


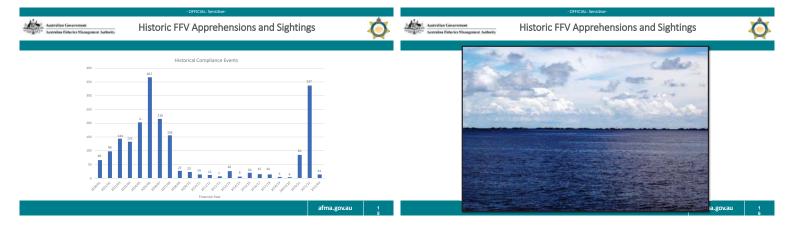








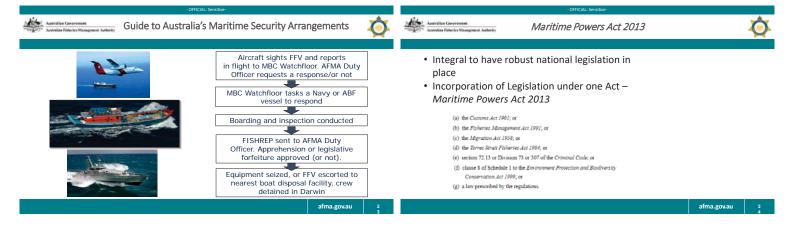


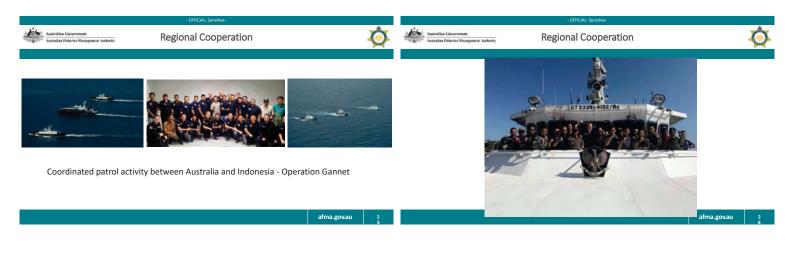








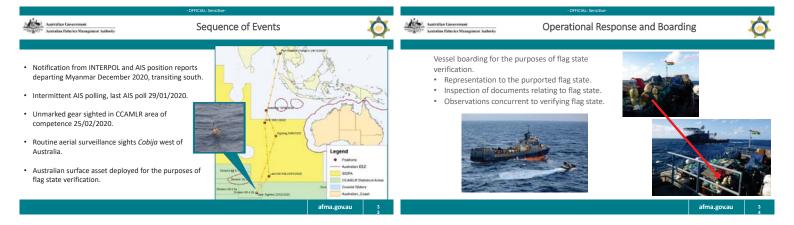




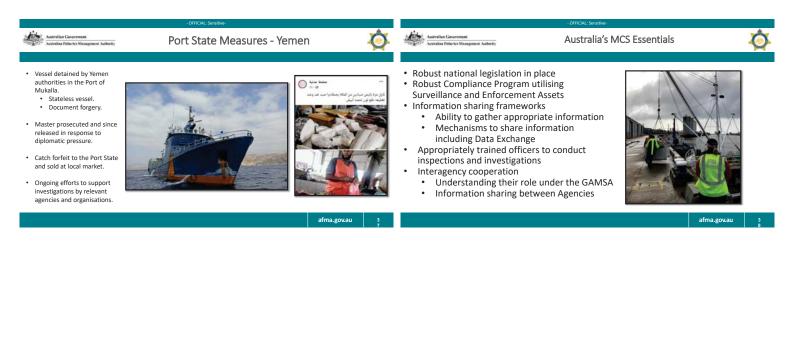


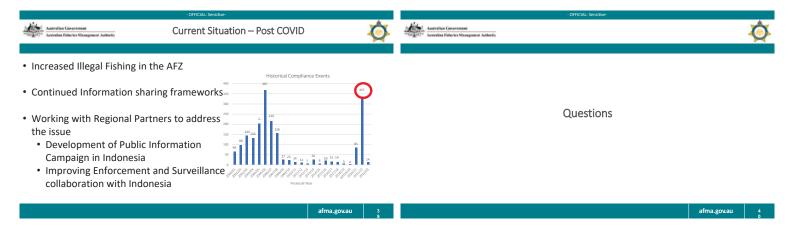


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Australian Gevennment R ²⁰⁷⁹ Australian Faberics Management Authority		Ö	Australian Geogramment Australian Fatherics Management Authority	The Vessel – FV Cobija (ex. Cape Flower)
	Regional Case Study – FV Cobija		 January 2020 – AFMA receiv movements through AlS from Comprehensive case file Historically licensed by I Notified fishing ven of Competence asc Reports of Toothfish unl Ecuador etc. IUU listed in SEAFO and NEAFC Cross listed in IC SIOFA and IOTC - Fishing inside FAO Area 47. Information from Bolivia to S deregistration in Jan 2019. AFMA initiates the coordinat Australian Government resp 	Bolivia ttures in CCAMLR Area early as 2014. loads in Myanmar and CAT, SEAFO indicates possible
		afma.gov.au 3		afma.gov.au 3











AN-IUU Interactive Platform

The Regional Workshop on Monitoring Control and Surveillance for Combating IUU Fishing in Southeast Asia 23 - 24 August 2022 Pattaya, Chonburi, Thailand

Thira RODCHEVID, PSM Implementation Group Fishing and Fleets Management Division, Department of Fisheries



Background

The ASEAN Network for Combating IUU Fishing (AN-IUU) developed a platform for both effective information sharing and an operational network that enables easy and effective communication among national authorities in AMSs.



The Status of AN – IUU Interactive Platform

- AN IUU Interactive Platform was developed, established and introduced to AMS
- The username & password to access the Platform already provided to Focal Points
- ✤ Launch the AN IUU Interactive Platform
- Endorsed AN-IUU Guidelines by the 30th ASWGFi
- Under the process for endorsement of AN-IUU Guidelines by SSOM-AMAF (August 2022) and AMAF, respectively



Development of AN-IUU Guidelines Timelines

	Events	Issues
21-22 Dec 2020	The 1st AN-IUU meeting	The AMSs requested Thailand to work with ASEC for the development of AN-IUU Guidelines.
12 Nov 2021	The 1st workshop for AN-IUU Guidelines	AMSs and consultant who supported by E-READI collaborated to develop zero draft of AN-IUU Guidelines.
9 Feb 2022	The 2 nd workshop for AN-IUU Guidelines	AMSs and consultant collaborated to develop 1st draft AN-IUU Guidelines and received feedback from AMS.
18 Feb 2022		ASEC circulated 1st draft AN-IUU Guidelines plus revised Procedures for Cybersecurity to AMSs for getting feedback.
22-23 Feb 2022	The 2 nd AN-IUU meeting	AMSs considered 2 nd draft AN-IUU Guidelines and requested Thailand to revise Procedures for Cybersecurity
16 Mar 2022	-	Thailand submitted a revised Procedures for Cybersecurity to ASEC.
29 Mar 2022		ASEC circulated 2 nd draft AN-IUU Guidelines and revised Procedures for Cybersecurity AMSs
23-24 Jun 2022	The 30th ASWGFi	AMSs endorsed AN-IUU Guidelines
August 2022	The 44th SSOM-AMAF	Propose to SSOM-AMAF for consideration

Way forward



Thailand wishes the guidelines will be endorsed during SSOM-AMAF (August 2022) and AMAF, respectively for further actions on implementing of AN-IUU interactive platform



AN-IUU Interactive Platform is a key tool to enhance and strengthen the exchange related IUU activities information among AMSs to combat IUU fishing in the ASEAN region





and

2 cooperating non-

contracting parties

India Italy Japan South Korea

> Commission for the Conservation of Antarctic Marine Living Resources Commission pour la conservation de la faune et la flore marines de l'Antarctique Комиссия по сохранению морских живых ресурсов Антарктики Comisión para la Conservación de los Recursos Vivos Marinos Antárticos

CCAMLR management of Antarctic fisheries

EU

France

Germany



CCAMLR

There are four species currently fished in Antarctica:

South Africa

United Kingdom

Spain

Sweden

Ukraine

Uruguay

USA

- Patagonian toothfish
 (Dispositionus cloginaidous)
- (Dissostichus eleginoides) Antarctic toothfish (Dissostichus mawsoni)
- Mackerel icefish
- (Champsocephalus gunnari),
 Antarctic krill (Euphausia superba)

Crab (*Lithodidae* spp.) – is occasionally fished and an exploratory crab fishery was agreed on in 2018.

CCAMLR

Commission for the Conservation of Antarctic Marine Living Resources Commission pour la conservation de la faune et la flore marines de l'Antarctique Комиссия по сохранению морских живых ресурсов Антарктики Comisión para la Conservación de los Recursos Vivos Marinos Antáritos

Primary Compliance Monitoring Tools





Vessel Monitoring Systems (CM 10-04)

 Reports on the location of vessels operating in the Convention Area.

Inspections (CM 10-03 and CCAMLR SOI)

 Port and at-sea inspections of vessels fishing in the Convention Area under <u>CCAMLR's System of</u> <u>Inspections (SOI)</u>. (Requirements Consistent with PSMA)

Catch Documentation Scheme (CDS) (CM-10-05)

Distinguish between legal and illegal harvesting.



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Catch Documentation Scheme (CDS)

- Tracks toothfish from the point of landing throughout the trade cycle
- The CDS is intended to establish the origin of all **Toothfish** caught
- Implemented by CM 10-05 and its annexes
- Supported by an electronic CDS (e-CDS)
- Each participating State nominates CDS officers who manages other e-CDS users in that country
- https://www.ccamlr.org/en/compliance/catchdocumentation-scheme





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Additional Sources of Data

Vessel Catch Reporting (23 Series of CMs) Reports on fishing activity and catch data for vessels operating in the Convention Area.

Transhipment Reports (CM 10-09)

 Advance notice and post reporting on transhipments that occur in the Convention Area.

Vessel Movement Reports (21 Series of CMs)

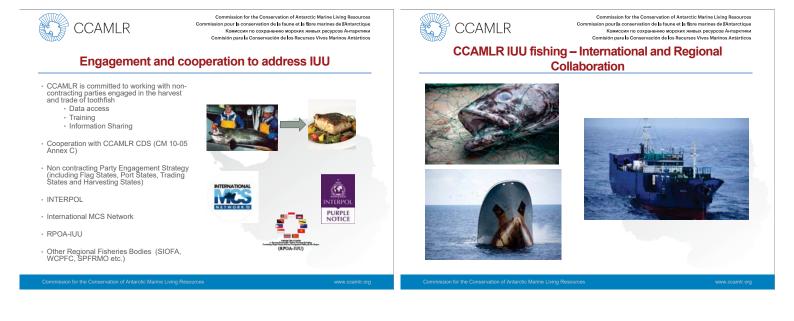
Notice of vessels entering/exiting management areas and MPAs

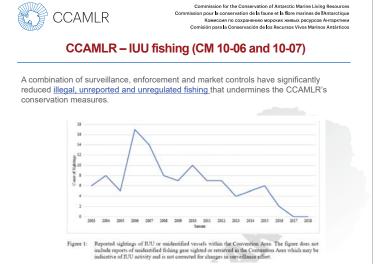
Scientific Observer Reports (SISO) - Observations and reports related to fishing activities of vessels with deployed scientific observers

Open Source and/or Subscription Sources

tion for the Concentration of Antarotic Marine Living Resources









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IUU Fishing in CCAMLR

- Fishing without a license
- False or not reporting of catches
- Fishing in a closed period/closed area
- Fishing with prohibited gear
- Transhipping with known IUU vessels (vessels on <u>CP IUU Vessel</u> <u>List</u> or <u>NCP IUU Vessel List</u>)
- Failure to provide valid catch documents
- Fishing activities that undermine the objectives of the Convention





Commission for the Conservation of Antarctic Marine Living Resources mimission pour la conservation de la faune et la flore marines de l'Antarctique Kowuccus no coxpanemeno aopcorx wunsex procycoa Arraportismo Comisión para la Conservación de los Recursos Vivos Marinos Antárticos





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www.ccamlr.org



Commission for the Conservation of Antarctic Marine Living Resources Commission pour ls conservation de la faune et la flore marines de Pantarctique Neurocras na corganesiense wopcoux exesses procycoa Antaportisou Comisión para la Conservación de los Recursos Vivos Marinos Antárticos

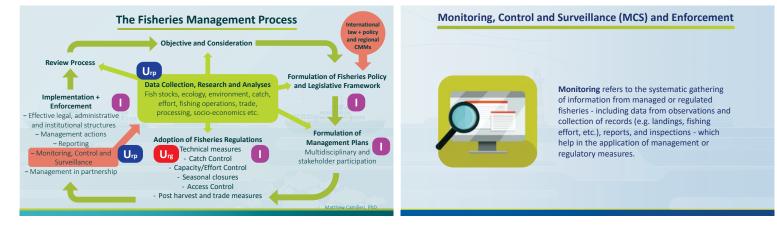
Thank you!



Commission for the Conservation of Antarctic Marine Living Res

www.ccamlr.org





Monitoring, Control and Surveillance (MCS) and Enforcement

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V		

Control is linked to management and regulatory measures and involves checking actions or facts and analysing information gathered through monitoring and surveillance activities to ensure compliance with such measures.

Monitoring, Control and Surveillance (MCS) and Enforcement



Surveillance involves the systematic, realtime or near real-time observation, and screening, gathering and recording/storing of information, of fishing or fishing-related activities e.g. via government vessel patrols, VMS, AIS, and radar.

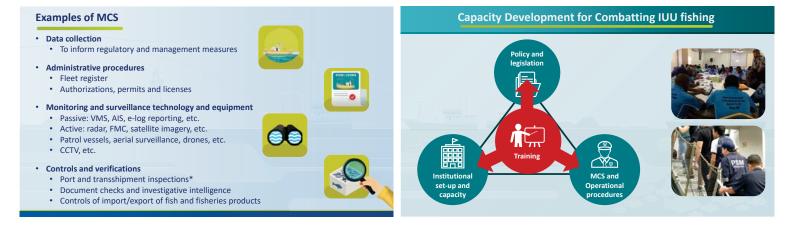
Monitoring, Control and Surveillance (MCS) and Enforcement



Enforcement occurs where there is an actual or suspected contravention of measures or noncompliance and involves imperative action to stop/correct the action and/or impose punishment (administrative or criminal) for the action.

Essentials of MCS

- Maintaining records of fishing vessels, owners and operators
- Using monitoring tools such as VMS, logbooks/documentation and observers
- Acquiring, storing and disseminating of MCS data
- Implementing surveillance and inspection regimes
- Implementing an effective enforcement regime supported by a robust operational and legal framework
- Developing and implementing MCS schemes for access to waters and resources, including authorization
- Implementing applicable catch documentation and traceability schemes
- Training and educating all persons involved in MCS operations



Main challenges for effective MCS (needs assessment results)

	MCS and Enforcement Framework	Human Resou
	 Lack / absence of legislation, policies, plans and strategies Limited coordination at national, bilateral and regional levels 	 Unclear and limited ro of fisheries inspectors Not enough fisheries Inadequate training /s
1	aining programs and capacity building	Information collection
	 Insufficient resources to finance trainings 	 No official reporting n collect data and inform
	Lack of clear objectives for capacity building	 No structure and met analyze data, make de for risk assessment

MCS means and technological tools

Poor or old technology for MCS Poor interagency coordination to optimize use of national assets

nt budget for M

esponsibilities skill sharing mechanisms



Inadequate/deficient coordination to implement SOPs







Cooperation among States

States should coordinate their activities and cooperate directly, including through RFMOs, by:

- Adopting compatible policies and measures
- Acquiring, managing, verifying and exchanging fishing data and information
- Conducting joint MCS operations
- Investigating and taking action against IUU fishing
- Sharing expertise and technology
- Enforcing of applicable laws and conservation and management measures, or provisions adopted at a national, regional or global level







Information exchange at national (interagency), regional and global level, is essential to combat IUU fishing

Examples of Information Exchange at National Level

What?	Who?		Why?		How?	
e.g. 1 Flag and coastal States: vessel registration, authorization, surveillance (VMS/AIS)	Transport, fisheries, coastguard, other*	•	Common awareness of fishing vessels operating in EEZ Coordinated approach for registration and authorization of vessels Denial of fishing operations in EEZ to IUU fishing vessels		are in place	
e.g. 2 Port State: advance request into port by foreign flagged vessels, inspection results	Port, fisheries, coastguard, customs, labour, sanitary, other*	•	Prevent IUU fishing products from being landed in ports by foreign-flagged vessels Develop a risk-based assessment for inspections	•	information exchange: • Common databases • Automated exchange of	
e.g. 3 Market State: catch	Customs, port,	•	Prevent products derived from		information among interoperable	
and trade certificate information	fisheries, sanitary/health, other*		IUU fishing from entering the supply chain		systems	
* Depending on national cont	:ext					

Examples of Information Exchange at Regional Level

What?	Who?	Why?	How?	
2.9. 1 Relevant fishing uthorization 8.2. Relevant ransshipment authorization a.g. 3 Regional vessel record	Relevant States, RFM05/RFBAS Secretariats, other international organizations	 Common awareness of fishing vessels operating in areas under RFMOs competence Coordinated approach for registration and authorization of vessels Denial of fishing operations to IUU fishing vessels 	Common database or platform for the aggregation of information On: - VMS/AIS real time monitoring (regional FMC) - Joint inspection reporting system (electronic reporting system) - Cross-listing of IUU fishing vessel lists	





INTERNATIONAL NETWORK ≋

International MCS Network

Mission: To promote and facilitate cooperation and coordination of the members of the Network through information exchange. capacity development and joint work in order to achieve the improved effectiveness of monitoring, control and surveillance (MCS) activities.

- An informal and voluntary organization.
- 21st Anniversary of the Network. Formed in 2001 by five founding members (Australia, Canada, Chile, Peru, and the U.S.) supported by FAO and the European Commission

Membership: Nearly 80 member States, RFMOs, RFBs. Eight organizations with Observer status.





International MCS Network

- Facilitate Cooperation and Raise Awareness updated website at: www.imcsnet.org
- Current review of our communications approaches.
- Support and Strengthen MCS Capacity building
- Contribute to or facilitate MCS trainings
- Exchange of MCS Equipment
- Register of Vetted MCS Experts
- Coordinate the Tuna Compliance Network (TCN) and the Pan-Pacific Fisheries Compliance Network (PPFCN).



INTERNATIONAL

TWORK≋

Current MCS Challenges

- IUU constantly changing and getting more complex. Identifying IUU is getting harder
- Fisheries administrations generally remain information rich, but often intelligence poor.
- Fisheries continue to become more of a global activity: Vessels operating further from home ports;
- Continued transhipment and bunkering activities keeping fishing vessels at sea longer.
- More complex beneficial ownership structures for vessels.
- Resource depletion leading to spatial challenges including tensions between coastal and offshore fishing and strains on MCS capacity.





Emerging MCS Opportunities

Rapid technological development and application to fisheries MCS.

- Remote sensing.
- Data analytics and machine learning.
- Growth in the development and availability of opensource tools.
- Greater awareness of the different tools that can support improved levels of fisheries compliance.
- Including voluntary compliance.
- Increasing collaboration and cooperation at the national, regional and international levels
 - Greater information sharing and availability.



The Joint Analytical Cell (JAC)



- A collaborative initiative with shared goals of: • (a) detecting, deterring, and eliminating Illegal, Unreported, and Unregulated (IUU) fishing
 - activities, (b) increasing overall transparency of fishing activities at sea,

 - (c) building the capacity of developing countries to more effectively and efficiently implement and maintain their own MCS regimes.
- Five initial focus Areas:
- Port Controls & Vessel Risk Assessment, Fisheries patrol planning and support, Transhipment Monitoring, MCS Capacity Building and Global Issues of Interest.
- Seeks to develop into a larger coalition of like-minded organizations and 'home' for technology, data and operational support



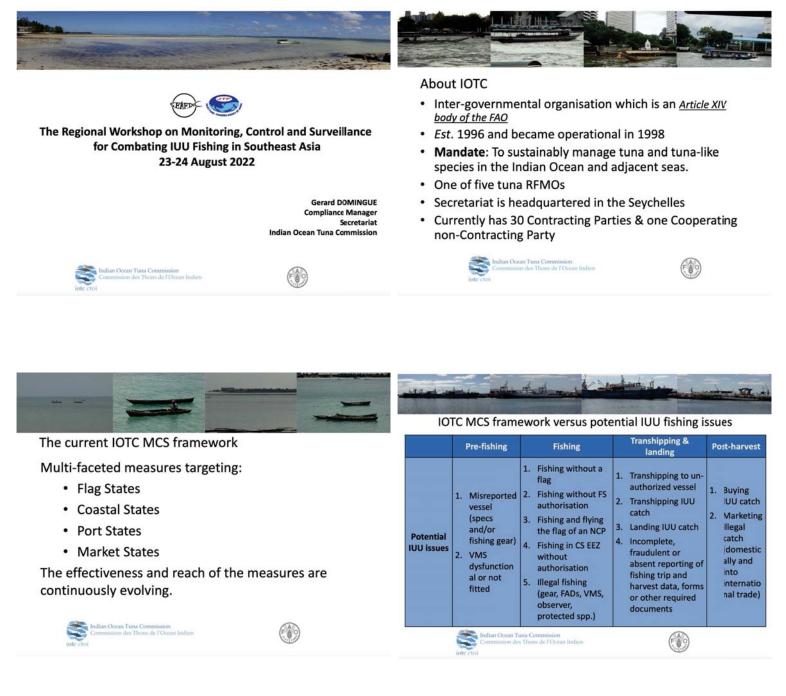


7th Global Fisheries Enforcement Training Workshop (GFETW)

- 7th GFETW 30 July 04 August 2023 in Halifax Nova Scotia.
 Workshop theme: MOVING FROM WORDS TO ACTION Innovative Collaborative Partnerships to Combat Illegal, Unreported and Unregulated (IUU) Fishing.
- A forum for MCS practitioners to share information about MCS challenges and successes and discuss new and emerging fisheries compliance strategies and tools.
- Presentation of the 4th Stop IUU Fishing Award.
- Travel assistance and sponsorship is available to support attendance by representatives of developing IMCS Network Members.

www.gfetw.org/







Effectiveness of current MCS related Measures

May be categorised as low, medium or high based on:

Completeness – are all angles covered

- e.g. disparity between authorised record of fishing vessels and authorised record of carrier vessels
- Transparent who can access derived information
- Not all information reported and collated are available to publicly
- Integration can existing measures be consolidated
 - e.g. implementation of port State measures and port inspection scheme

Initiative to streamline measures have been conducted by the IOTC Secretariat, but requires members to follow through at the level of the Commission.





MCS related Measures ... work in progress

- Improve the measure related to vessels monitoring system (VMS)
 Working Group constituted to discuss technical and financial details
 - Progress has been slow
 - Level of participation in the Working Group has been low
 - Agreement reached on a hybrid centralised system (Direct/Indirect reporting)
 - Some important stakeholders not part of the current discussion
 - Agreed points may be contested at the level of the Commission

9

Indian Ocean Turia Commission Commission des Thons de l'Ocean Indien

(FA)



- An IOTC Catch Documentation Scheme (CDS)
 - Intended to replace the current Statistical Document Programme
 - Working Group constituted to discuss technical and financial details
 - Engagement of CPCs in general has been poor, which stalls progress
 - Level of participation in the Working Group has been low
 - Some important stakeholders not part of the current discussion
 - Agreed points may be contested at the level of the Commission

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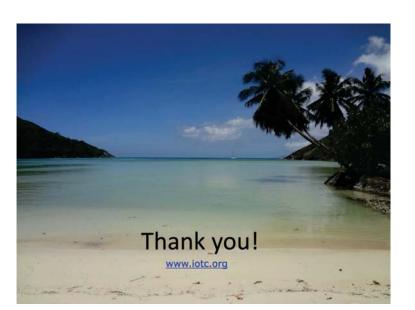
MCS related Measures ... work in progress

- An IOTC High Seas Boarding and Inspection Scheme (HSBIS)
 - The notion was first introduced in the IOTC in 2013 as a result of the increase in armed personnel onboard fishing vessel – anti piracy
 - 2014 A guideline for the development of a regional binding measure was proposed
 - 2014 A Working Group was constituted to further develop the guideline
 - 2016 Some CPCs did not deem HSBIS a priority

n Ocean Tuna Commission nission des Thons de l'Ocea

- 2022 A proposal for a measure based on work previously done was tabled for adoption: no consensus
- 2023 ... ?

•



IMPLEMENTATION OF MCS IN RPOA-IUU

Presented at Regional Workshop on Monitoring, Control, and Surveillance for Combating IUU Fishing 23-24 August 2022



Delivered by: M. Eko Rudianto Vice Executive Director **RPOA-IUU Secretariat**



RPOA-IUU CORE ELEMENTS

instruments; 3. Role of regional and multilateral

Role of regional and multilateral organisations;
 Implementing Coastal State measures;
 Enforcing Flag State reasures;
 Considering regional market measures;
 Developing Port State measures;
 Beveloping regional capacity building;
 Strengthening monitoring, control and surveillance (MCS);
 Controlling transhipment at sea;
 Implementation.

OUTLINE

- Overview of RPOA-IUU
- Ð MCS and Technology Used
- **RPOA-IUU MCS Status**
- Gap Analysis and possible MCS implementation



Regional Plan of Action to Promote Responsible Fishing Practices including Combating IUU Fishing in the Region (RPOA-IUU)



Agreed on 4 May 2007, Bali-Indonesia, by 11 Ministers related to fisheries (Australia, Brunei Darussalam, Cambodia, Indonesia, Malaysia, Papua New Guinea, Philippines, Singapore, Thailand, Timor Leste, Viet Nam)

Voluntary regional initiative: Each participating Countries have role on the implementation, as the commitment on responsible fishing practices including combating IUU Fishing

Advisory Bodies

WorldFish **@** 💮 EAP FAO-APFIC WORLD FISH SEAFDEC INFOFISH





Monitoring, Control, and Surveillance (MCS)

MCS is integral part of fisheries management (FAO)

MONITORING

- Collection. measurement and analysis of fishing data. Examples: Data of
- fishing activities, catch, area of operation, potential by catch.
- Regulations related to fishing activities, both nationally, regionally or

CONTROL

international. It includes things that are required or prohibited when carrying out fishing activities.

SURVEILLANCE

is an element related to law enforcement. Ensure that fishing activities are in accordance with applicable regulations.



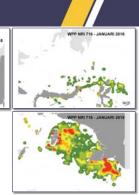


VMS based Surveillance





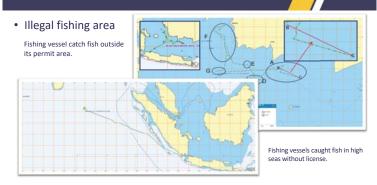
- Surveillance activities for fishing vessels activities · Data collected is very useful to detect hot spot fishing areas
- VMS planted in fishing vessels can be used for detecting fishing activities behaviour.



Monitoring Illegal Fishing Activities

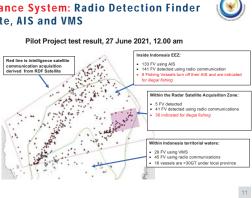


Monitoring Illegal Fishing Activities

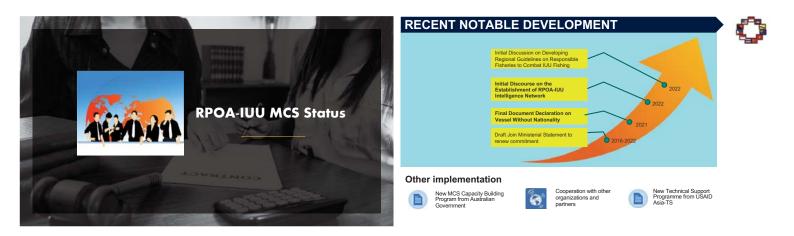


Integrated Surveillance System: Radio Detection Finder (RDF), Radar Satellite, AIS and VMS

- 1. In general, all illegal Fishing Vessels turn off their transponders both VMS and AIS. Radio communication stays ON
- 2. Intelligence Communication using Radio Frequency Detection Finder (RDF) based on signal spectrum processing technology can be used to monitor illegal fishing activities, especially in EEZ.
- 3. The most ideal way is to use integrated surveillance systems namely AIS detection, VMS, satellite radar and RDF.



MCS TECHNOLOGY IN REGIONAL LEVEL Is it possible to apply at What are the obstacles? regional level?? MCS If possible, How to How to overcome those implement obstacles that?



RPOA-IUU MCS SUB REGIONAL WORKING GROUPS

1.

2.

3. 4.

Current project components:

engagement

Regional transboundary fisheries governance and strengthened management

Ecological corridor of critical and important habitat for aquatic resources in the GoT Project monitoring, knowledge management, and stakeholder

Alignment of incentives mechanism

GULF OF THAILAND



Country participants: 1. Malaysia

- 2. Cambodia
- 3. Viet Nam
- 4. Thailand
- data source presented by chair of GOT in the 14th RPOA-IUU CCM, Dec 2021



SOUTHERN AND EASTERN AREAS OF THE SOUTH CHINA SEAS AND THE SULU-SULAWESI SEAS



Component of activities:

- 1. 2. 3. 4.
- Bilateral arrangement Joint border coordinated patrol and surveillance Developing a trans-boundary MCS network Trainings on MCS, fishery management, PSMA, VMS, and flag state and coastal state responsibilities Information sharing and database system
- 5.

Country participants: 1. Malaysia

1. 2.

- Indonesia
- Brunei Darussalam Philippines 3. 4.

data source based on 6th SESCS and SSS

RPOA-IUU MCS SUB REGIONAL WORKING GROUPS

ARAFURAN AND TIMOR SEAS



Component of activities: 1. Surveillance support in the Dogleg Area 2. Coordinated patrols

- 1. 2. 3. 4. 5.
- Officer exchanges for MCS Activities Enforcement associated with the harvest and trade Information sharing and database system

Country participants: Papua New Guinea 1.

- 2. Australia
- 3 Indonesia
- 4. Timor-Leste

data source based on 11th ATS Sub-Regional Working Group



AO CCRF	IPOA-IUU	UNCLOS	1995 UNFSA	No	MCS in IPOA-IUU	National/Regional	Status in RPOA-IUU region	Possible Intervention
. Observers program . Inspection schemes	1. Authorization schemes of vessels	1. Enforcement by Flag state (provides effective	1. Implementation of national inspection	1	Authorization schemes of vessels	National	Different level of implementation in participating countries	
. Vessel monitoring system	sel monitoring am 2. VMS enforcement such as rules, standards, law schemes and subregional and regional schemes for cooperation g operation and ed activities schemes and subregional and regional schemes for cooperation de dactivities 5. MCS operation g operation and ed activities 5. MCS operation planning and funding de their national pliance with national and certification of actual pliance with national and certification of actual pliance with national and certification of actual pliance with national and 2. Implementation of national observers program 8. Dissemination of revaluon and 7. Implementation of national and 3. Implementation of VMS	2	VMS	National/Regional	It is closed system apply for each country. Different level of implementation.	VMS data exchange especially in the border are between country. For that we need an application allows VMS data can be exchange at regional le		
 Applicable measurement of fishing operation and 		cooperation	3	Observers on board	National/High Seas	The level of implementation differs between participating countries.	Observers in high seas regulated by RFMOs	
related activities outside their national jurisdiction		national observers program	4	MCS training and education	National/Regional	Different level of MCS capacity & personnel capabilities between participating countries	MCS training assessment Regional MCS training needs & curriculum National and regional training and education	
. Compliance with conservation and			5	MCS operation planning and funding	National	Different level of MCS capabilities between participating countries		
management measures adopted by				6	Dissemination of MCS data	National/Regional	Limited dissemination of MCS data.	Developing of TOR on Data Sharing mech- Developing of Fisheries Intelligence Netwo
sub-regional or regional organization or arrangements				7	Implementation of national and international boarding and inspection regimes	National/Regional	Different level of implementation in participating countries	Developing regional boarding and inspection r
-			8	Recognizing the rights and obligation of masters and inspection officers	National/Regional	Different level of implementation in participating countries.	Capacity building program	



COOPERATIONS TO ENHANCE THE IMPLEMENTATION OF MCS IN SOUTHEAST ASIA

Regional approach

- Better understanding of current situations in fisheries management
- Be aware of IUU fishing, its impacts, challenges, and links with other activities $% \left({{{\rm{D}}_{\rm{B}}}} \right)$
- Review the main aspects of fisheries monitoring, control, and surveillance systems and their application Identify the role of enforcement and its critical components
- Learn about international frameworks of binding and nonbinding instruments and mechanisms of binding and holi-binding instruments and mechanisms and the policy, legal and institutional frameworks which underpin efforts to prevent, deter and eliminate IUU fishing and contribute to sustainable fisheries
- Network with professionals from other countries and share knowledge on recent trends, issues, and challenges in fisheries monitoring, control, and surveillance.



Ongoing and future activities

- **Regional initiatives and platforms**
- Exchange views, issues, and concerns to manage fisheries Joint fisheries management plans in regional and sub-regional waters in SEA
- Set of technical references to support fisheries management
- Training courses Fisheries management: MCS, IUU fishing, PSM, eACDS, RFVR, EAFM, gender in fisheries, etc.
- Stock assessment
- Fish taxonomy and fish larvae
- Fishing gear and vessels technologies/innovations

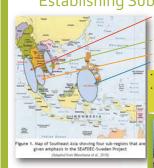
Regional Programs/Projects (selected)

- Capacity building IUU fishing (JTF/TD) Stock assessment (JTF/TD)
- Capacity building on IUU fishing (JICA/TD)
- Fisheries information

 • Fisheries statistics (JTF/SEC)

 • Pelagic fisheries (JTF/MFRDMD)

Joint fisheries management • GoTFISH (FAO/GEF) • BOBLME Phase 2 (FAO/G • PIO Grant (USAID) GoTFISH (FAO/GEF) BOBLME Phase 2 (FAO/GEF) PIO Grant (USAID)



Establishing Sub-regional MCS Networks

Andaman: Northern – 2 countries; and Southern – 3 countries) Lower Mekong River Basin – 4



concerns (MCS practices at illegal fishing, joint gement plan of transboundary



-- 1

Useful information to be shared...

Fisheries resources

- Stock status and structure (population) Fishing areas and seasons
- Catch and landing by species and gear type Data collection methodology
- Fisheries products and traceability system
- Fishing gear, vessels, and ports
- Fishing efforts by gear type or by species Number of vessels (licensed and non-licensed)
- Vessel movement Domestic and foreign vessels fishing ports
- Registration and licensing

- Fisheries laws/regulations
- Laws, legislations, regulations Seasonal catch limit
- Permitted documents for allowing docking in border countries
- Others Information on IUU fishing, PSM, etc.
- Platform for information sharing





SIOFA APSOI Southern Indian Ocean Fisheries Agreement

SIOFA Summary Presentation for the Regional Workshop on Monitoring Control and Surveillance for Combating IUU Fishing in Southeast Asia

23-24 August 2022

SOUTHERN INDIAN OCEAN FISHERIES AGREEMENT

Mission: long-term conservation o fisheries resources and protection of vulnerable benthic ecosystems in the high-seas (ABNJ).

SIOFA Contracting Parties, Cooperating non-contracting Parties and Fishing Entities (CCPs) are:

Australia
 China
 China
 Conroros
 Ine Cook Islands
 Ine Cook Islands
 Ine Cook Islands
 Ine Cook Islands
 Indoa
 Iono behalf of its overseat
territories
 India
 Japan
 Korea
 Mauritius

MCS IUU Workshop - August 202



SOUTHERN INDIAN OCEAN FISHERIES AGREEMENT

Main fisherie

- Deepsea seamounts and ridges species
- Tropical shallower demersal species

• Oil fish

Do not manage tuna, tuna-like and highly migratory species which are managed by IOTC

Average annual catch: 20,000 tons

FDC – MCS IUU Workshop – August 2022

DC - MCS IUU Workshop - August 202



SOUTHERN INDIAN OCEAN FISHERIES AGREEMENT

MCS procedures are driven by SIOFA Conservation and Management Measures (CMM)

- Vessel's authorization
- Listing of IUU vessels
- Vessels without nationality
- Monitoring of fisheries
- High-sea boarding and inspection procedures



VESSEL AUTHORISATION AND IUU LISTING

- Vessels must be authorized to fish in the Agreement Area
- Vessels that are detected or reported to fish without being authorized will fall on a draft IUU list.
- The draft IUU list is processed annually by the Compliance Committee.
- The Meeting of the Parties adopt a final IUU vessel list every year.
- The SIOFA IUU vessel list is circulated to all other RFMOs for information and eventually cross listing procedures.

PORT INSPECTION

DC - MCS IUU Workshop - August 2022

- SIOFA CCPs shall maintain an effective port State control for all vessels that have been engaged in fishing in the SIOFA Area.
- Use of ports shall be denied to IUU listed vessels or vessels believed in having engaged in IUU activities.
- Inspection reports are provided to the Secretariat and shall provide total species tonnages and catch to be offloaded.
- Compliances issues detected during port inspections are reported to the vessel flag competent authority and to the Secretariat.
- Each CCPs shall provide a report of action undertaken for its noncompliant fishing vessels to the Compliance Committee.

MONITORING AND CONTROL

- Vessels shall provide all logbook data to its competent authority
- All vessels shall use an automatic location communicator and report to its competent authority

- Each transshipment or transfer made in the high-seas
- ► Each entry to or exit from the SIOFA area.

HIGH-SEAS BOARDING AND INSPECTION

- SIOFA CCPs may conduct boarding and inspection of vessels engaged or suspected to have engaged in fishing activities for fisheries resources in the SIOFA area.
 Each CCP shall accept and facilitate boarding and inspection
 Boarding and inspection shall prioritize vessels:

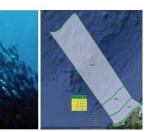
- Not on the SIOFA RAV
 Suspected of IUU fishing
- Included in any other organization IUU list
 Requested to be inspected by a party or an organization
- That have no observers on board
 That have an history of non-compliance with regulations or with CMMs
- Inspection reports are provided to the fishing vessels authority and to the Secretariat
- Violations are reported to the competent authority which shall take several measures
 CCPs shall provide annual report of high-seas inspection, and annual reports of actions undertaken if violation have been detected to the Meeting of the Parties.

FUTURE ENDEAVOURS

- Improve compliance monitoring by increasing Secretariat capacity with a compliance officer.
- Establish a SIOFA Vessels Monitoring System.
- participating states.
- Increase information exchanges with other Regional Fisheries Bodies (IOTC, CCAMLR, SWIOFC).



CONTROL AND SURVEILLCE



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BACKGROUND



Background

The RPOA emphasises the role of MCS in a successful fisheries management regime and calls on countries in the region to:

- develop suitable and relevant inter-agency arrangements to develop their networks to quickly share information such as locations, names of vessels, ports used (home and/or unloading port) and species targeted;
- enter into appropriate sub-regional MCS arrangements to promote the elimination of IUU fishing within the region;
- develop a regional MCS network to promote the sharing of information and to coordinate regional activities to support the promotion of responsible fishing practices, including the participation in the work of the International MCS Network:
- promote knowledge and understanding within their fishing industries about MCS activities to enhance sustainable fisheries management and to help combat IUU fishing; and
- develop, as appropriate, observer programmes including the requirement for industry to adhere to inspection regimes and carry observers on board when required.

gust 2022

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Introduction

• Brunei Darussalam is already implementing a number of MCS-related measures. In terms of monitoring activities, fisheries data collection is conducted by the Capture Fisheries Industry Division. One of the main functions of this Division is to evaluate the status and the economies of exploitation of pelagic and demersal fisheries resources. Some of the control-related measures implemented by DOF include limiting the number of licences in the trawl fisheries, regulating fishing gears and mesh sizes of nets, and zoning of fishing grounds.

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Fisheries Order 2009

 DOF, through the Fisheries Order 2009 also prohibits trawl fishermen and their fishing vessels from entering the area within one nautical mile radius of any operational oil platform and pipeline. Since January 2002, numerous campaigns have been launched to raise the level of awareness among local fishermen on the dangers of conducting fishing operations near oil platforms. Fishermen particularly small-scale fishermen are required to conduct their operations outside of the 500 metres radius safety zones of oil installations. Several operations are being conducted by enforcement agencies to protect fisheries operations and oil platforms, such as the Operasi Menangin and Operasi Kembura. These operations help prevent local fishermen from fishing inside the 500 metres radius of oil fields.

Merchant Shipping Order 1988

• Additionally, the Merchant Shipping (Safety Zones) Order 1988 declares the Safety Zones which are established around all oilfield installations and structures extending to a distance of 500 metres measured from each point on the edge of the installations and structures situated within the area of the territorial waters and continental shelf of Brunei Darussalam.

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Merchant Shipping Order 1988

In addition, the merchant shipping (safety zones) order 1988 has designates five areas namely:

- 1. Safety Zone 1-Champion Shoal Oilfield
- 2. Safety Zone 2- Magpie Oilfield
- Safety Zone 2 Magpie Oillie
 Safety Zone 3- Fairly Oilfield
- 4. Safety Zone 4- South West Ampa Oilfield
- 5. Safety Zone 5 Fairly Baram Oilfield.

For the purpose of this Order, unauthorised entry by any person or vessel into the Safety Zone is prohibited except for the purpose of saving life or property; on account of stress or weather, or when the vessel in a distress situation. Any contravention of the Merchant Shipping (Safety Zones) Order 1988 by the master or owner of any vessel is, on conviction, liable to a fine not exceeding \$100,000 and the vessel is liable to be detained

In terms of surveillance, the Fisheries Order 2009 lays out the powers of authorised and enforcement officers for boarding and inspection, particularly to:

- stop, board, and search any vessel within Brunei Darussalam's water and make any inquiry, examination and inspection concerning crew, equipment or fishing appliance, or fish carried on board that vessel;
- stop, board and search, and inspect any vessel or vehicle transporting fish; require to be produced and inspect any licence, permit, record, certificate or any other document required under the Order or under any generally accepted international rules and standards;
- enter and search any place in which he has reason to believe that an offence under the Order is about to be or has been committed;
- · take samples of any fish found in any vessel or vehicle inspected;

مارد اللان

- arrest any person who he has reason to believe has committed an offence under the Order:
- seize any vessel including its equipment, gear, furniture, appurtenances, stores and cargo, or any vehicle which he has reason to believe has been used in the commission of any offence;
- seize any fish which he has reason to believe has been caught in the commission of an offence under the Order;
- seize any explosive, poison, pollutant or other noxious substance, apparatus or prohibited gear or any other thing which he has reason to believe has been used to contravene the provisions of the Order;
- · and seize any unlicensed fishing appliance or marine culture system.

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Strengthening MCS systems

 Asset Management, Licensing And Enforcement Division. These divisions enforce the Fisheries Order 2009 and the Brunel Fishery Limit Act Chapter 130. They also monitor and conduct surveillance activities on the encroachment of foreign fishing vessels in Brunei Darussalam's waters; fisheries import, export, and transit activities throughout Brunei Darussalam; and issuance of fisheries licences, including fishing gears and aquaculture and fish processing activities.

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Strengthening MCS systems

 Apart from the Department of Fisheries, other agencies are also involved in implementing Brunei Darussalam fisheries laws and regulations and conducting MCS activities, such as the Marine Police and the Royal Brunei Navy, the Royal Brunei Air Force and the National Maritime Coordinating Centre. The Marine Police, a branch of the Royal Brunei Police has the responsibility for enforcement of marine resources-related regulations throughout Brunei Darussalam's maritime jurisdiction. Some of the challenges being confronted by the Marine Police relate to limited assets, pressure due to increasing violations in Zone 3, and fishing near oil rigs.



Strengthening MCS systems

 The Royal Brunei Navy's main function is the defence of the country. It has the power to investigate and enforce violations by vessels but plays a secondary role in fisheries enforcement. It undertakes eight patrols per month and deploys only one ship at any time. In order to overcome the difficulty of the Royal Brunei Navy to police the entire Brunei Darussalam maritime zone, it aims to invest in new technologies such as vessel monitoring system. Aside from the Royal Brunei Marine Police and the Royal Brunei Air Force, the Royal Brunel Navy also cooperates with other enforcement agencies such as the Directorate of Operations of the Ministry of Defence, Internal Security Department, Immigration and National Registration Department, Labour Department, Forestry Department, and the Royal Customs and Excise Department.

Strengthening MCS systems

 Joint operations by enforcement agencies have resulted in the detention and arrest of foreign fishing vessels. Inspection of licences, fishing gears and import permits, imported fresh, live and frozen fish, and cod end mesh size net are also conducted by enforcement agencies, as well as inspection in immigration posts. The number of patrol vessels used for fisheries enforcement has significantly increased from 29 in 2003 to 446 in 2010 Enforcement agencies aim at conducting more than 360 patrol times a year.

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Strengthening MCS systems

 A significant enhancement and landmark to the MCS capabilities of Brunei Darussalam is through the government initiatives to establish a national coordination centre in 2010 which is task to purview into any maritime issues in which the newly established centre known as the National Maritime Coordination Centre (NMCC) under the Prime Minister Office. The objective of NMCC is to coordinate maritime surveillance and maritime security responds with its stakeholders which consists of government maritime enforcement agency and other non government organization. It is also acting as a fusion centre for info sharing on maritime threats and incidents occur nationally and regionally.

Strengthening MCS systems

 DOF has developed coordinated national MCS strategy that would investigate the components of an MCS system, including use of appropriate satellite and related technology which would be deemed appropriate for the type of fishing activities and other maritime crimes and security incidents that occur in its maritime zones. This system would include the adoption of a vessel monitoring system, an improved logbook system, inspection scheme, and participation in the International MCS Network.

Strengthening MCS systems

 Brunei Darussalam also acknowledges the need for co-management in Zones 1 and 2. Brunei Darussalam would engage the industry and other stakeholders to develop co-management responses in these fisheries zones to prevent IUU fishing and ensure sustainable management of fisheries. In line with opening up Zone 4 to commercial fishing either through foreign access or joint ventures, Brunei Darussalam would conduct more intense MCS activities in the area to prevent the IUU fishing. In particular, Brunei Darussalam would investigate opportunities for cooperative MCS with its neighbours, including coordinate patrols, hot pursuit arrangements and reciprocal enforcement.

IUU/ Foreign Vessels Infringement in Brunei Darussalam

2010 - 2017 Statistics

- 289 total sightings (usually only a small % of the total infringement)
- 28 caught & prosecuted
- B\$ 19M/ year estimated economic losses
- Brunei Darussalam capture fisheries resources is estimated to generate earnings of B\$ 112 million per year sustainably;
- The capture fisheries industry is currently supporting the livelihood/ employment of **1,600** locals

System & Infrastructure Requirement

Requirement	Possibilities
Monitoring & Control Centre	Existing Supervisor's Office @ FLC
VMS 2-way system, hardware & e-Log Book	 To identify Vendor & Service Provider To place on-board each commercial fishing vessels (either subsidized or fully at fishermen's own costs
VMS Air-time	To identify Vendor & Service Provider
Fishermen's capacity to use system	Training: • By Venders & Service Providers • SEAFDEC
DoF capacity to implement and enforce system	Training: • By Vendors & Service Providers • SEAFDEC

SUMMARY OF ACTIONS AND STRATEGIC RESPONSE

Develop suitable and relevant inter-agency arrangements to develop networks to quickly share information such as locations, names of vessels, ports used, species targeted, and other information

- Adopt an MCS strategy that would investigate the components of an MCS system which would be deemed appropriate for the type of fishing activities that occur in its fisheries zones.
- Engage the industry and other stakeholders to develop co-management responses in these fisheries zones to prevent IUU fishing and ensure sustainable management of fisheries
- $\ensuremath{\, \bullet \,}$ Conduct more intense MCS activities in the area to prevent the IUU fishing

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- Investigate opportunities for cooperative MCS with its neighbours including coordinate patrols, hot pursuit arrangements and reciprocal enforcement
- The establishment of the NMCC in 2010 will enhance the coordination and effectiveness of MCS efforts in Brunei Darussalam



23 August 2022





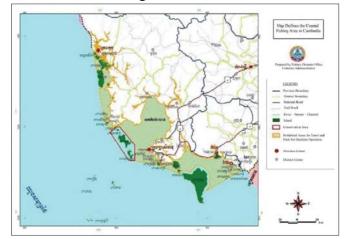


The Regional Workshop on Monitoring Control and Surveillance for Combating IUU Fishing in Southeast Asia

> 23-24 August 2022 Pattaya, Thailand

MCS of Cambodia

Ngin Kamsan*, Buoy Roitana** and Kao Monirith*** * FIA SMART Core Team member ** DDG of FIA and IUU team leader ** Director of Marine FIA Inspectorate The coastal fishing area



The marine fisheries management measures:

- Monitoring the prohibition of trawling in water shallower than 20m deep line
- Inspect that only authorized fishing gears and restricted mesh size are used
- The proclamation of the closed season for mackerels (January to March)
- Inspect that the prohibition of fishing in seagrass and coral reefs areas is adhered to
- Inspect fishing vessels for registration and licensing
- Marine Fisheries Management Areas
- Prevent, deter and eliminate IUU fishing

Institutions involved in MCS

Monitoring (M)

- 1. Fisheries Administration (FiA)
- Department of Fisheries Affair (DFA)
- Department of Fisheries Conservation (DFC)
- Department of Planning, Finance and International Cooperation (DPFIC)
- Marine Fisheries Research and Development Institute (MAFReDI)
- 2. Provincial Department of Agriculture, Forestry and Fisheries (PDAFF)- FiA Cantonments

Activities for Monitoring (M)

1. Catch assessment

- Selecting 8 landing sites and 225 fishing vessels for interview

- 2. Research on fishing gears
- Survey completed by DFA

3. Research on coral reef and seagrass area

- FiA and FiA Contonment staffs were trained on diving

Institutions involved in MCS

Control (C)

- 1. Fisheries Administration (FiA)
- Department of Administration Affair and Litigation (DAAL)
- Department of Fisheries Affair (DFA)
- Department of Fisheries Conservation (DFC)
- Department of Planning, Finance and International Cooperation (DPFIC)
- Marine Fisheries Research and Development Institute (MAFReDI)

2. Provincial Department of Agriculture, Forestry and Fisheries (PDAFF)- FiA Cantonments

Activities for Control (C)

1. The revision of fisheries law - The draft of fisheries law is discussing with involved ministries and it is planned to get approval by the end of 2022

- 2. Proclamation of fishing gears - The draft of MAFF's proclamation on legal and illegal fishing gears is going on
- 3. Coral reefs and sea grass area

- The draft of MAFF's proclamation on coral reefs and sea grass area is going on

Institutions involved in MCS

Surveillance (S)

- 1. Fisheries Administration (FiA)
- Department of Administration Affairs and
- Litigation (DAAL)
- Marine FiA Inspectorate

2. Provincial Department of Agriculture, Forestry and Fisheries (PDAFF)

- FiA Cantonments
- 3. National Committee for Maritime Security (NCMS)
- 4. Ministry of Environment (MoE)
- 5. Marine Police and Navy

National Committee for Maritime Security (NCMS) Overall coordination body for state action at sea





Law enforcement (integrated across agencies)





Equipment

7 New patrol boats (2x 12m and 5 x 8.5m) 5 New Patrol vehicles VMS Operations Centre (in preparation) 125 VMS units will install for large scale vessels (above 18m)



Training and capacity building

- Aerial surveillance training (completed)
- PSMA training (coming soon)



Monitoring and reporting technology

Spatial Monitoring and Reporting Tool (SMART)



2. Inspection at landing site



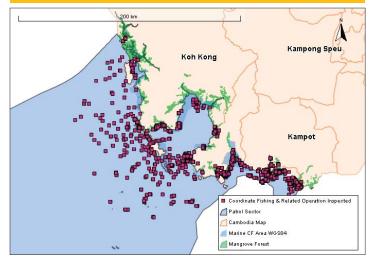
Vessels inspection by SMART using smart mobile (Blackview) in 2021

1. Inspection at sea

No.	Vessels Type	ККG	кѕм	KEP	IMA	КАМ
1	Large Vessel (Larger than 24m)	-	1	-	6	-
/	Medium Vessel (12m to smaller than 24m)	75	154	91	205	76
3	Small Vessel (Smaller than 12m)	120	173	82	94	109
	Total	195	328	173	305	185
	Grand Total			1,1	86	

Coordinates of fishing and inspected operation in 2021 by SMART

No.	Vessels Type	KKG	KSM	КЕР	КАМ
1	Large Vessel (Larger than 24m)	-	-	-	-
2	Medium Vessel (12m to smaller than 24m)	21	98	51	37
3	Small Vessel (Smaller than 12m)	168	72	111	96
	Total	189	170	162	133
	Grand Total		65	4	



Obstacles of MCS implementation

- Limited budget
- Lack of data indicating the health of stocks
- Lack of real time surveillance of the EEZ
- Institutional arrangement for fishing vessels registrations not yet streamlined with issuing of fishing license
- PSMA implementation is challenging





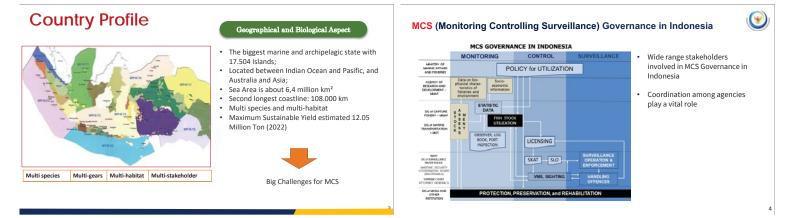
Implementation of MCS in Indonesia

Alza Rendian Donny Muhamad Faisal MMAF Fisheries Officer

Presented in Regional Workshop on Monitoring Control and Surveillance for Combating IUU Fishing in Southeast Asia, 23-24 August 2022, Pattaya, Chonburi Province, Thailand

LAYOUT

- 01 COUNTRY PROFILE
- 02 INTEGRATED SURVEILLANCE SYSTEM
- 03 NATIONAL AND REGIONAL PROGRAMME
- 04 INPUT



Vulnerable Area of IUU fishing



IUU fishing in Indonesia Waters







Surveillance based Community

- To combat illegal fishing the Indonesian government introduced a Surveillance based community surveillance initiative in 2001
- POKMASWAS is voluntary. A wide range of people from local communities are involved in POKMASWAS. Groups of local leaders, religious leaders, traditional leaders, NGOs, and some local fishermen support the government by conducting fishing surveillance activities such as patrolling, monitoring fishing sites and reporting illegal fishing activities.

Indonesia has 1,640 groups of POKMASWAS



COMPONENT/TOOLS OF MCS FOR FISHING VESSEL



Implementation in Fisheries Transparancy

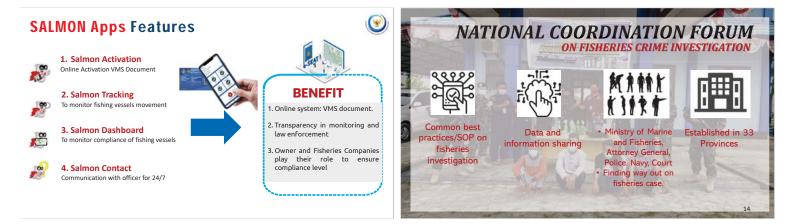


Indonesia has developed mobile application (called SALMON) to involve Fisheries Companies and Owner in monitoring their fishing vessels

Information sharing mechanism in Regional Platform (RPOA-IUU, SEAFDEC, ASEAN Network on Combating IUUF)

 Indonesia has involved Surveillance based community Based Surveillance (POKMASWAS)





REGIONAL AND INTERNATIONAL COMPLIANCE

- 1. Indonesia has ratified PSMA and Standard of Training, Certification and Watchkeeping for Fishing Vessel Personil (STCWF) and in process to ratified Cape Town Agreement 2012 and ILO C-188
- 2. As a member of RFMOs (IOTC, CCSBT, WCPFC) and non contracting party (IATTC), Indonesia implements Conservation and Manageme Measures. Indonesia registered fishing vessels in those RFMOs:
- 3. Indonesia itself is actively involve in three 3 Regional Mechanism to combat IUU Fishing notably RPOA-IUU, SEAFDEC, and newly established AN-IUU.
- Indonesia has submitted data on fishing vessels for FAO Global Record, and SEAFDEC Regional Fishing Vessels Record (RFVR), and regularly update it each year.
- 5. Traceability fisheries product: a. Implementation of Catch Certification System (SHTI). b. Implemented electronic logbook (E-Log book).



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Terima Kasih



The Regional Workshop on Monitoring Control and Surveillance for combating IUU Fishing in Southeast Asia, Pattaya, Thailand on 23–24 August 2022

The Implementation of Monitoring Control and Surveillance (MCS) for Combating IUU Fishing in Lao PDR



Aquatic Resources Management Section, Division of Fisheries, Department of Livestock and Fisheries (DLF).¹ Capture Fisheries Unit, Living Aquatic Resources Research Center (LARReC) .2

Outline of Presentation

- 1. General information of Country;
 - 2. Status of the fishery resources;
 - 3. Current situation of IUU fishing Issue;
 - 4. Criteria to response for IUU fishing issue;
 - 5. Obstacles of MCS implementation;
 - 6. Challenges and suggestions for MCS implement;
 - 7. Lesson learned of MCS implementation.

General information of Country



- Lao PDR is landlocked country, situated in the middle of South East Asia and has no direct access to the seas;
- Population 6.9 Million;
- Land Area 236,800 sq.km;
- Arable land: 1,000,000 ha;
- Aquaculture 42,000 ha;
- Capture fisheries are believed to be more than 1.2 million ha:
- Almost all Laos territory has an enormous importance for fishery resources, including its rich aquatic biodiversity.

General information of Country (Cont'd)



- * Abundant water resources important for fisheries &
- Aquatic There are 5 types of water bodies:
 - That have potentials for fisheries and Aquaculture
 - **River: Mekong river and 14 tributaries** 1)
 - Hydropower reservoirs 2)
 - 3) Irrigation reservoirs Wetland
 - 5) Rice-field

Total: estimate 1.2 million ha

Status of the fishery resources

- The total area of water resources for capture fisheries is believed to be more than 1.2 million ha;
- The estimated consumption of fish is approximately 167,922 tonnes per year;
- Consumption of other aquatic animals is estimated at 40,581 tonnes per year;
- The people of Lao PDR, especially in the rural communities which account for more than 75 per cent of the population, still depend upon the country's fish and other aquatic animals as their most reliable sources of animal protein intake;
- More than 481 fish species have been identified in Lao PDR, including 22 exotic species, and more species are being discovered regularly;
- Among other aquatic animals, about 37 amphibians, 7 species of crabs and 10 species of shrimps have been recorded, but these records would cover only about 15 per cent of the estimated total;
 - Fishers use varies gears to catch fish with more than 30 fishing gears documented in Laos. Common fishing gear use are gill net, cast net, hook and line, lift nets. Gill nets are used to catch various size of fish.

Current situation of IUU fishing Issue

1. Illegal fishing:

- Lao fisheries law very new Just developed and declared in 2009;
- Population increase;
- Demand fish for food increase:
- Over fishing (high market demand);
- Illegal fishing gears (ex: electro fishing, dynamite, poison...



Current situation of IUU fishing Issue (Cont' d)

2. Report system:

- Unreported from PAFO to DAFO to FMC;
- Data collection;
- Human resources;
 - Lack of coordinate between center to local;
- Lack of budget ;
- Lack of equipment/vehicle (technology for communicate.



Current situation of IUU fishing Issue (Cont'd)

- **3. unregulated:**
- Do not controlling;
- Fisheries law did not access to people and community;
- Some where uses illegal equipment;
- Over fishing.



Criteria to response for IUU fishing issue

- Drafting by law regulation (MAF Decision):
 Establish fisheries inspection officer;
 - Drafting roles and responsibilities of 'Fisherman Association and Fisheries Committee';
 - Enforcement fisheries law.
- 2. Disseminate fisheries Law to district and village level:
- Establish mechanism coordinate between Center with local.
- Measures to fine.

Criteria to response for IUU fishing issue (Cont'd)

- **3. Promote to establish for "FMCs".**
- 4. Development Strategy Implement Plan 2025'SIP'.
- 5. Identify priority project 4 priority areas :
- Aquaculture;
 Capture Fisheries;
- Adaptation to CC;
- Capacity building .

Obstacles of MCS implementation Limitations of information on MCS activities on Inland Fisheries; Most of fisher folk are small-scale.

Challenges and suggestions for MCS implement

• Food security and poverty reduction;

- Increasing population, consumption demand, illegal fishing, overfishing, destruction of fish habitats, declining fishery;
- Limited Govt. capacity for fishery management;
- Management and development zones not yet identified;
- Exploitation of natural resources (land, water, forest).

Lesson learned of MCS implementation

- 1. Fisheries law amendment:
 - Establish fisheries inspection officer
 - Roles and responsibilities of 'Fisherman Association'
- Enforcement fisheries law
- 2. Disseminate fisheries Law to district and village level:
 - Establish mechanism coordinate between Center with local for reporting
 Measures for fines penalty
- 3. Promote to establish for Fisheries Management Committee "FMCs".

Some Fisheries management activities in past







Some Fisheries management activities in past (Cont'd)





Some Fisheries management activities in past (Cont'd)

Processing promotion products







Some Fisheries management activities in past (Cont'd)

Village patrolling Unit













Capacity building





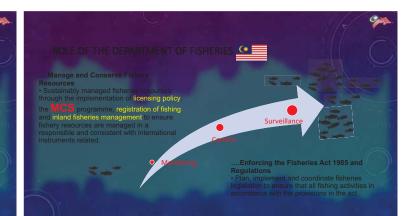








The Regional Workshop on Monitoring Control and Surveillance for Combating IUU Fishing in Southeast Asia 23-24 August 2022, in Pattaya, Chonburi Province, Thailand



Amendment of Fisheries Act 1985

- Effective 30th September 2019.
- The newly amended law imposes penalty six-time heavier than that of the former provisions.
- RM 6 Million (approximately USD 1.5 Million) for the owner or skipper and RM600,000 (approximately USD 150,000) for every crew member of foreign fishing vessel encroached into Malaysian Fishing Waters.
- also imposes penalty up to RM 4 Million (approximately USD 1Million) for any local fishing vessel fished without valid license or in violation of license condition on the high seas.



SOP To Handle Foreign Fishing Vessels Engaged In IUU Fishing

Malaysia already establish SOP for handling foreign fishing vessels which is suspected engaged with IUU fishing.

Involves multiple enforcement agencies.







International Collaboration

- Regional Plan Of Action To Prevent, Deter And Eliminate Illegal, Unreported And Unregulated Fishing (RPOA IUU)
- ASEAN Network For Combating Illegal, Unreported And Unregulated Fishing (AN-IUU)
- Bilateral Communication

Refuse Entry Of IUU Fish

Information from Thai PSM Investigation (10 August 2018). Catches from the 4 IUU fishing vessels which listed in IOTC IUU Vessel. New flag Somali. 46 containers rejected by Thailand.

- went to Singapore via 3 container vessels.
 transferred to the other 3 container vessels
 Destination : Penang Port, Malaysia.

Malaysia's action ■ Refused entry by MAQIS Malaysia. ■ Return to Djibouti.

• Full cooperation of DOF, MAQIS, CUSTOM, Port Authority and Importer

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Concerted Effort in **Combating IUU Fishing**

Information circulated by AFMA- dated 23rd June 2020

- FV Cobija- identified as IUU fishing vessel by Australian Authorities.
- Vessel may be heading towards port in South East Asia.

Malaysia's action

Circulated information to relevant enforcement authorities and port authorities. Full cooperation of all authorities in Malaysia.



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Annex 18





"Implementation of Monitoring Control and Surveillance (MCS) in Myanmar"

the Regional Workshop on Monitoring Control and Surveillance for Combating IUU Fishing in Southeast Asia" from 23-24 August 2022 in Thailand

23-8-2022

1. MCS Implementation in Offshore Marine Fisheries



Types of Marine Fishery in Myanmar



a. In-shore Fishery

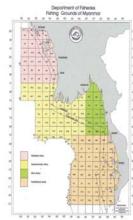
b. Off-shore Fishery

- > 10 nautical mile from shore
- Not more 25 HP engine & 40 feet length of the boat.

Outer area of inshore to end of EEZ

More than 25 HP engine & 40 feet length

Bottom trawl, Purse seine, Surrounding net, Drift net, Squid net, Trap & Long line



Legal framework

- DOF manages the marine fishery in accordance with following Fishery Laws ;

- ✓ Law relating to the Fishing Rights of Foreign Fishing Vessels (Law No.11/89)
- ✓ Myanmar Marine Fisheries Law (Law No. 9/90)
- ✓ Law amending the law relating to the Fishing Rights of Foreign Fishing vessels (Law No.15/93)
- Law amending the Myanmar Marine Fisheries Law (Law No.16/93

New Fisheries Law under process

Marine Fisheries Law (Reform the Marine Fisheries Law 1990 and Law relating to the Fishing Rights of Foreign Fishing Vessels)

MCS Measure for local vessel

- All vessel owner (Fishing or carrier)
 - shall have the vessel registration issued by Department of Marine Administration (DMA).
 - shall have the licence
 - shall appoint on board his vessel only those fishermen who are registered in the Department.
 - shall operate in the permitted fishing ground fishing day
 - shall comply with the regulations and directives prescribed by the Department.

MCS Measure for foreign vessel

- For all fishing vessel, the company
 - shall apply prior permission of DoF to enter Myanma Marine waters.
 - shall use the vessel route which is permitted by DoF in prior permission.
 - shall operate in the permitted fishing ground.
 - shall be inspected in designated check points and shall land in designated landing site in Myanmar.
 - shall install the vessel monitoring system-VMS

MCS component

- DoF transfer the inspection power to Custom Department and NAVY.
- NAVY has been conducting the vessel inspection at sea.
- All vessel have to be inspected in check point by one stop service included by DOF, DMA, Custom Department, Myanmar Police Force, Immigration, Myanmar Port Authority, Department of General Administration at shore.





MCS Measure for Marine Offshore Fisheries

1979 -	September/October
1980 -	March/April
2013 -	November/December
2015 -	April/June
2018-	August/September

Year	Pelagic Fish	Demarsal Fish	Total Biomass
1979-80	1.0 MT	0.75 MT	1.75 MT
2013-15	0.303 MT	0.647MT	0.95 MT



- Based on the results of the fisheries resources survey,
- Do not allowed the building and importing of new fishing vessels into Myanmar water
- Do not allow the fishing right of foreign fishing vessel
- Limitation of fishing gear mesh size, quantity and fishing day

2018 –Survey on Distribution of eggs and Larvae and Environmental factors, Close season and close area for all fishing from May to July in 2021 fishing season

Vessel Marking System

Description	Place of Licence Issue	Word color on Line Color of Hull
	Taninthayi	White
Off Shore Fishing Vessel	HO/Ayeyarwaddy/Mon	White
	Rakhing	White
Off Shore Carrier Local Carrier		Red
	Joint Venture	Red
Foreign Fishing	OTS (Long Line, Squid, Trap)	Red
	Fishing Right	White

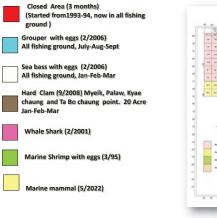


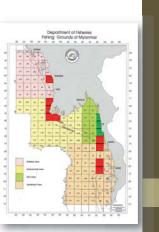


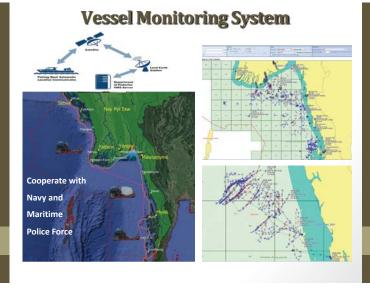
Prohibition of fishing gear

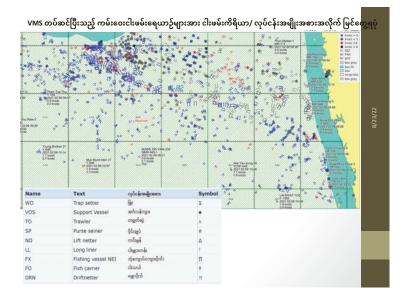
- Under "Law Relating To The Fishing Rights Of Foreign Fishing Vessels", "Myanmar Marine Fisheries Law" and related regulations, fishing gear that is destructive to the environment and the fisheries resources are banned.
- These gears includes pair trawl fishing, electric fishing, fishing using poisons, chemicals, explosives, Purse seine net less than 3.5 inch mesh size, for trawl net cod-end mesh size less than 2 inches.

Prohibition of fishing Activities for Protected Fish species









2. Implementation of MCS in Costal Area



Sustainable Coastal Fisheries



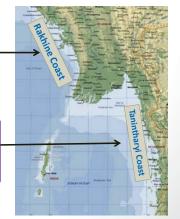
Two Patrol boats provided by Denmark-Myanmar Country Programme in 2020 to inspect of IUU activities around the LMMA areas in the Southern Costal Zone. (DoF & MMPF and community members)



Strengthen the cooperation among local community

Co-management area for conservation of fishery resources and eliminate IUUF cooperated with WCS, DOF and community of fisherman

LMMA area for allocated fishing ground and to conserve fisheries resources by community of fisherman cooperated with FFI & DOF and



Cooperation with Regional Fishery Management Activities

- Regular upload of update RFVR data ≥ 24 m to the RFVR data base under SEAFDEC/TD for sharing information among the member states
- Continuing Implementation of eACDS application that was technical supported by SEAFDEC/TD as pilot stage at three landing sites in Yangon region
- Providing the EU catch certificate for exportation of marine fisheries products to foreign countries
- Implementing the Port State Measure Agreement cooperate with regional fisheries management organization of information sharing on IUU fishing vessels
- MOU with Thailand to develop the fishery sector for sharing technical experiences and information for both fisheries and aquaculture

F V COBIJAN

- Cooperation and discussing between Department of Fisheries, DMA, MPA, Custom and Marine Police was made.
- Denying entry (Banned permanently)Effective from 28th July 2020 12:00 Myanmar Standard
- Reported to IOMOU and entered into List of Banned Vessels by Member Authority (Myanmar)

			Ship Risk Indicatory						
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Challenges

- Weakness of multilateral cooperation for information sharing to address the IUU fishing
- Insufficient scientific data collection and research for marine capture fisheries to improve MCS for sustainable fisheries management
- Insufficient HRD for effective reporting and research for development of MCS.

Conclusion

- To improve cooperation among relevant agency such as NGOs, local and international Organization.
- To develop the efficient MCS system is essential for effective controlling of fishing capacity and IUU fishing.
- Need training and capacity building for the use and application of regulatory measures to support MCS.



IMPLEMENTATION OF MONITORING, CONTROL, AND SURVEILLANCE (MCS) PHILIPPINES

The Regional Workshop on Monitoring Control and Surveillance for Combating IUU Fishing in Southeast Asia

23-24 August 2022, Pattaya, Chonburi Province, Thailand

BACKGROUND

• Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR) through the Fisheries Protection Law Enforcement Group (FPLEG), in accordance with the Republic Act No. 10654-An Act to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated fishing, is mandated to address issues to all forms of illegal fishing as enumerated under such law.

MCS RELATED ACTIVITES Landbased operations



MCS RELATED ACTIVITIES Seaborne operations



TOTAL NUMBER OF FISHINGVESSE APPREHENDED

OTAL NUMBER OF CASES FILED

total of thirteen (13) total cases filed, dorsement of PNP-Maritime Grou

TOTAL AMOUNT OF ADMINISTRATIVE FINES COLLECTED ected a total of two hundred twenty nin usand, eight hundred sixty pesos (Php 229,860

Philippine IUU Fishing Index and Threat Assessment Tool (I-FIT)

The Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR) in collaboration with the United States Agency for International Development (USAID)

If ishing assessment workshop towards better understanding of IUU fishing in Philippine waters

UUU Fishing Index and Threat Assessment Tool (I-FIT) to measure IUU risk in municipal waters as well as in Fisheries Management Areas (FMA)

I-FIT was used how big of threat IUU fishing posed to a given area (prevalence), why it was occurring (vulnerability), and what was done to address it (response)

Initial assessment of of IUU fishing

Prevalence of fishing domestic commercial fishing vessel within FMA 8 (i.e. based on data from DA-BFAR, data from community reports)

Poaching by foreign-flagged vessels in Philippine waters (i.e. based on apprehension data from DA-BFAR and analysis of VIIRS nighttime satellite images)

Results from the assessment will be used for future research and policy

Responses should focus not only what is more visible from the shore but also address the harmful threats

□Fishing with fine mesh net – catch composed mainly of juvenile species \square Fishing without registration, permits or licenses – weak registration or licensing

OBSTACLE OF MCS IMPLEMENTATION

- · Lack of appropriate equipment, operating funds, and trained manpower
- Political intervention
- Poor registration and licensing
- Non-compliant to VMS (i.e. commercial fishing within municipal waters)

LESSON LEARNED

Deasures used to track IUU fishing reduction efforts are typically focused on outputs (*i.e.* number of patrols, apprehensions, cases filed and settled)

□ These measures are useful, but they do not show extent of IUU fishing and its impacts.

Other measures such as the use of remote sensing/satellite data (e.g. data from VIIRS boat detection, and AIS)

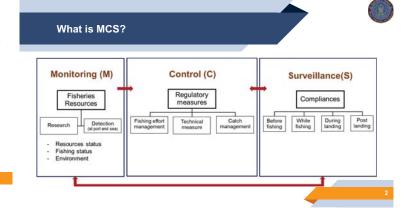
Only provide a partial perspective on IUU fishing and occurrence and incidences

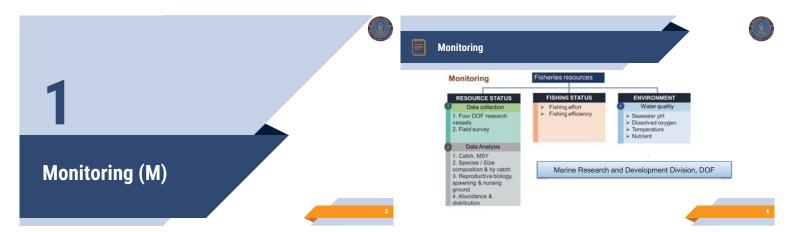
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Monitoring, Controls and Surveillance (MCS) Thailand

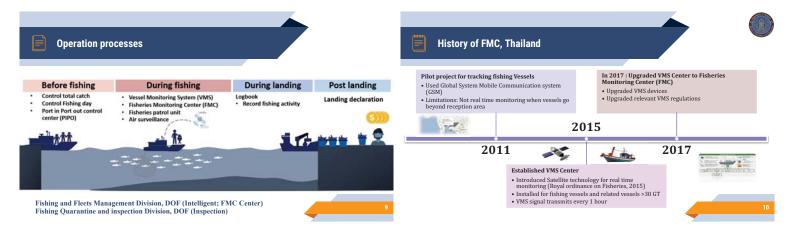
Thira RODCHEVID, PSM Implementation Group Fishing and Fleets Management Division, Department of Fisheries, Thailand

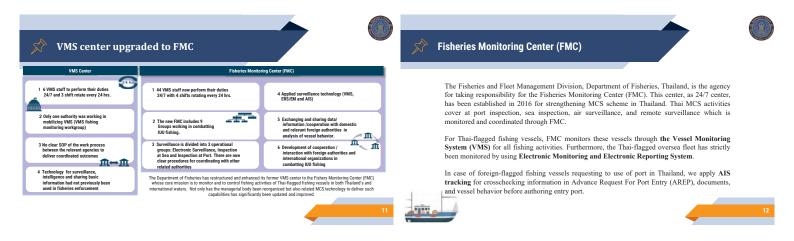




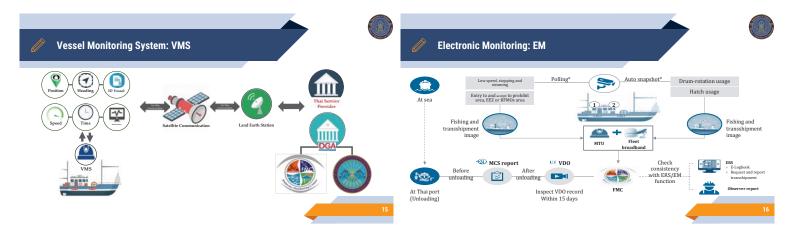


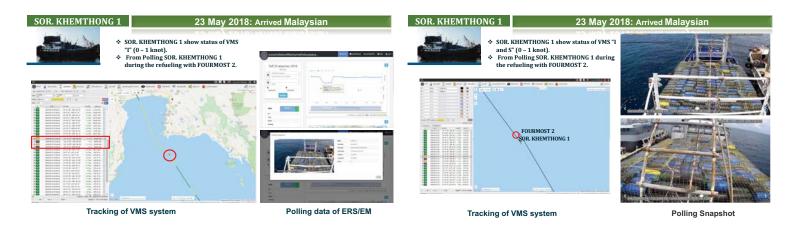






MCS Core Co	mponents (Surveilland	re)		Fisheries Monitoring System (FMS): Key Tools
BEFORE FISHING	2 WHILE FISHING	DURING LANDING	4 POST LANDING	VMS/AIS: track vessel route and position
Inspection at port	Electronic Surveillance	Inspection at port	Post Landing	NTU
Part List + Second Space - Oreans - Oreans - Oreans - Wild Series etc. - Wild Series etc. - Wild Series etc. - Wild Series etc. - Strandard Series etc. - Series and Series etc. - Series and Series etc. - Marchal and Series etc. - Marchal and Series etc. - Marchal and Series etc.	Applied surveillance technology • VMS • ALS (displicable) • Ext, ESS • If any meanual behavior is identified through the VMS, a notification is set to the relevant • - Polling picture	Partia 1. Impact base on Risk Assessment • Vessel & Ger • Carres • Lapbook based, composition of catch retained • gear used • License •	Catch lunding lespection 1) MAPP 2) MCTD Electronic Surveillance WMS WMS WMS WMS WMS	CTV: recod activities related to finding of transchipment at all time Drum-rotation sensors: montor finding ger usage to indicate The finding are usage to indicate The finding software System (Fils) System (Fils) Common rist Fishing and System (Fils) Common rist Fishing and System (Fils)
(Cooperation with related agencies)	Inspection at sea		permission. Checking for data transmission status before fishing	Hatch sensors: monitoring usage hatch and fish hold
	Inter agency coordination of surveillance & interdiction of illegal fishing	Electronic Surveillance		
Electronic Surveillance	1) Paketes pated Tools 1 Toolshooky for cross clocking 2) Tools 2 Toolshooky for cross clocking 3) Paket C Tools 2 Toolshooky for cross clocking analytic Palot project for AC smallance Tools 2 Toolshooky for cross clocking analytic Palot project for AC smallance Tools 2 Toolshooky for cross clocking br data C Toolshooky space and report branchingment br data Scientific research Tools clock vide resources pated and paing	ERS: ERS/EM software		
2. Tools & Technology for cross checking Vessel Monitoring System (VMS) ERS & EM		2. ERS		- E-Lopbook - Request and report transshipment
Checking for data Transmission status/functioning before fishing.		: Cross check video recorder, snapshot and polling		Observer report application: (In development)
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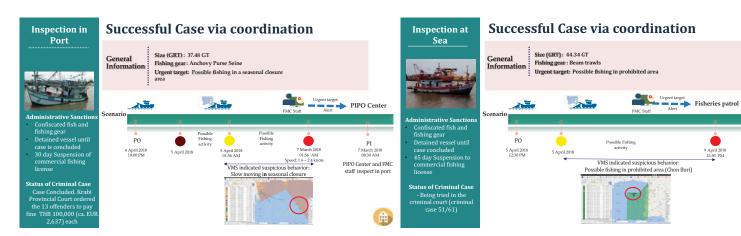
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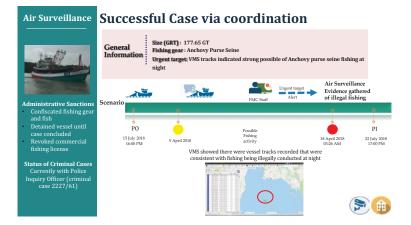
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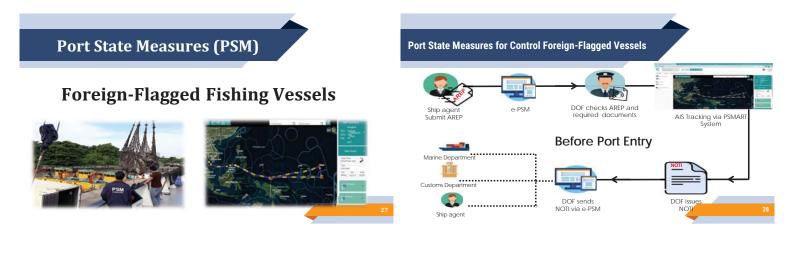














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I. LAW AND REGULATION

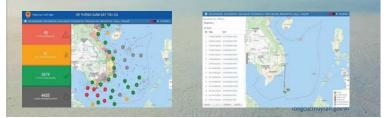
- Fisheries law (2017) stipulated, fishing vessels from 15m up compelled to install VMS devices and must be completed befor 1/4/2020
- VMS system has been set up at Directorate of Fisheries, decentralized and provided account to Sub-department
 - + Information and VMS data is managed by DOF of Vietnam; Directly monitor fishing vessels with length from 24- up
 - + Fishing vessels from 15-24m in length have been decentralised for subdepartemnts. Localities are responsible for monitoring, information processing this group of vessels

II. FISHING VESSELS MONITORING SYSTEM (VMS)

-VMS system has been recording information of 30.009 fishing vessels, include: location, route, and others

-Store and extract data of fishing boats are operating and losing connection at sea..

-Broadcast warning: when the boats go out of the allowed boundary line; go into MPAs;



II. FISHING VESSELS MONITORING SYSTEM (VMS)

- The VMS system has been deployed from center to local levels.
- Sharing data and decentralizing the right to use the system for localities,
- Retrieving the fishing trip data to identify violated fishing boats and impose sanctions to IUU fishing boats
- Useful in natural disaster prevention, search and rescue on sea.



III. OPERATING THE VMS SYSTEM

1. Personnel operating the VMS

DOF arranged human resource for operating VMS to ensure staffs on duty 24/24, divided in to 3 shifts

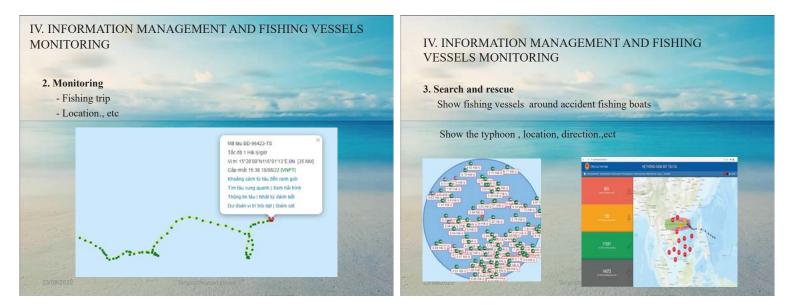
2. VMS operation process

The VMS operation process has been approved by DOF of Viet Nam

VMS system operators and other relative departments must strictly compliance all the steps of VMS operation process

IV. INFORMATION MANAGEMENT AND FISHING VESSELS

III. OPERATING THE VMS SYSTEM MONITORING Information of IUU fishing vessels outside the allowed fishing area must be informed to relevant departments. Đặc điểm tâu Trang thiết bị trên tâu Thông tin tàu 1. Information management Thông tin nhân diệ The results of the investigation and sanction have to be reported back to CM-95238-TS - ID information: relevant authorities and VMV center. Số đảng ký CM-95238-TS Fishing vessels name Cở hiệu Port of registration Số IMO 0000000 Fishing vessels that un-connected to satellite, during 6 hours must notify to Fishing license., etc. Hô hiệu 0000000 sub-department and authorities by other communication channels Quản tỷ Chủ tàu Phan Thiên Thành Đỗ Hoàng Toàn Thuyền trưởng Owner: Nghễ chính Nghễ câu - Câu tay mực ống Address Noi đăng ký Cà Mau Email Nhôm tàu tment of DO Phone number Cảng đảng kị Cá Mau Cà Mau Cảng cá phụ Ngày đảng kiếm 01/01/18 Ngày hết han đả 01/01/20



V. OBSTACLES AND RECOMMENDATIONS

1. Obstacles:

- Fishing vessels are un-connected on sea and uncontrollable.
- Can not communicate directly to fishing vessels on sea
- Modules and tools to analyze and assess to risk of violation of fishing vessels at sea
- There is no specific solution and tools to control vessels entering and leaving the fishing port

V. OBSTACLES AND RECOMMENDATIONS

2. Recommendations

- Rising the quality of human resource, training for staffs at subdepartments, fishing ports are operating VMS.
- Improving infrastructure to monitor fishing vessels entering and leaving the fishing port.



Enhancement and Promotion SEAFDEC Fisheries Management Tools for Combating IUU Fishing

SEAFDEC INITIATIVES TOWARD COMBATING IUU FISHING

SEAFDEC INITIATIVES TOWARD COMBATING IUU FISHING







WHAT'S eACDS ?

CD

- A Software for domestic marine capture fisheries aimed to enhancing the traceability of marine capture fisheries in the ASEAN region
- eACDS required several good practices & good governance such as Monitoring, Control and Surveillance (MCS)

MD

SC

CC











Collaboration with Other Partners





CLOSING REMARKS

Ms. Malinee Smithrithee SEAFDEC Secretary-General

The Regional Workshop on Monitoring Control and Surveillance for Combating IUU Fishing in Southeast Asia 23-24 August 2022 Pattaya, Chonburi Province, Thailand

Distinguished resource persons from international and regional organizations, and distinguished delegates from the ASEAN Member States (AMSs), Ladies and Gentlemen; Good Afternoon!

First of all, I would like to extend my sincere gratitude and appreciation to our Resource Persons as well as to the representatives from the ASEAN Member States for sharing with us the updated information and progress of MCS implementation activities for combating IUU fishing at various levels, and to all participants, I would also like to thank you for taking an active part in this two-day "The Regional Workshop on Monitoring Control and Surveillance for Combating IUU Fishing in Southeast Asia" from 23 to 24 August 2022.

All presentations from representatives from international and regional organizations, and our participants from AMSs through sharing information in group discussion are indeed highly valuable for combating IUU fishing in our region. I am confident that the experience, expertise, and knowledge shared with us would contribute to the successful implementation of future initiatives toward sustainable fisheries management systems and combating IUU fishing in our region.

We know that there are lots of matters to be discussed but we have been limited by time. Nonetheless, we came up with important recommendations, and I am thankful to all of you for your contribution during the discussions and sharing of ideas. Now, we have the results from the group discussion which will be used to combat IUU fishing in the Southeast Asian region.

We are all aware that Southeast Asia accounts for approximately a quarter of global fish production, enabling the region to strongly support poverty eradication and food security not only in the ASEAN but also all over the world. Therefore, it is important for the ASEAN Member States to take a lot of concrete actions necessary to address responsible fishing practices and management, especially implementing MCS activities in combating IUU fishing.

As we know, IUU fishing has been paid attention more strongly by various sectors for environmental sustainability and sustainable economic development. Thus, efforts to achieve the SDGs, with a focus on labor and socio-economic aspects and food security, and compliance with relevant international requirements or agreements, have been increased or enhanced year by year. Therefore, each country is encouraged to continue the necessary actions according to the relevant requirements. We, therefore, hope that this Workshop would serve as a good opportunity for participants to think of ways forward for combating IUU fishing in Southeast Asia.

In addition, technology can play an important role in promoting the IUU fishing countermeasures, and we are encouraged to apply the available new technologies that are practical for each country.

Furthermore, being aware that international or regional cooperation is effective for combating IUU fishing, SEAFDEC has been supporting the AMSs in their efforts to combat IUU fishing for more than

10 years, through the various activities supported by the Japanese Trust Fund and other partners. We would wish to assure you once again that SEAFDEC, together with collaborative partners and in cooperation with international and regional organizations, would continue supporting the AMSs, especially in their efforts to combat IUU fishing.

Lastly, I would like to express my appreciation to everyone for your active contribution and look forward to enhancing the close cooperation among relevant stakeholders including the ASEAN Member States, and relevant international/regional organizations, for the betterment of fisheries in Southeast Asia in the future. Thank you and have a good day!



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