

# Thoughts on the baseline and progress monitoring for the BOBLME IUU sub-component

Workshop

“Current Status of NPOA IUU and Identification Need on  
Innovation MCS Tools for Combating IUU Fishing Vessels”

3 to 5 September 2024

SEAFDEC Training Department, Samut Prakan, Thailand

# IUU Component what is project expected to deliver?

TDA/SAP Major outcome to achieve:

- “Formulate a Regional Plan of Action on IUU fishing (RPOA-IUU) and/or multi-national agreements to strengthen arrangements to determine and implement management measures to combat IUU at a regional level.”

Project document indicators **Outcome 1.2: IUU catch in the BOBLME reduced**

- By the end of the project, the following key outputs are anticipated under this Outcome:
  1. 20% reduction in IUU fishing from the BOBLME phase 1 baseline estimate for selected fisheries.
  2. Implement and as necessary prepare Regional Plan(s) of Action (RPOA) to address IUU fishing in the BOBLME.
  3. Eight National Plans of Action (NPOAs-IUU) and national IUU Monitoring, Control and Surveillance (MCS) systems and Vessel Monitoring Systems (VMS) strengthened.
  4. Tools for promoting best practices, such as MCS, Port State Measures (PSM) and traceability of fish and fisheries products (including catch documentation schemes), policies and national actions, to combat IUU fishing developed and implemented in national pilot/investment projects. Countries supported in acceding to the PSMA.
  5. Regional capacity development programme on port inspections, MCS and traceability implemented with 20 national fisheries staff trained in each country.
  6. Gender is mainstreamed into actions to combat and eliminate IUU Fishing in BOBLME.

# Why prioritize IUU?

IUU fishing has been identified by a number of inter-governmental bodies and processes, as a priority for action in marine fisheries governance across the RAP region.

There are a number of reasons for this including:

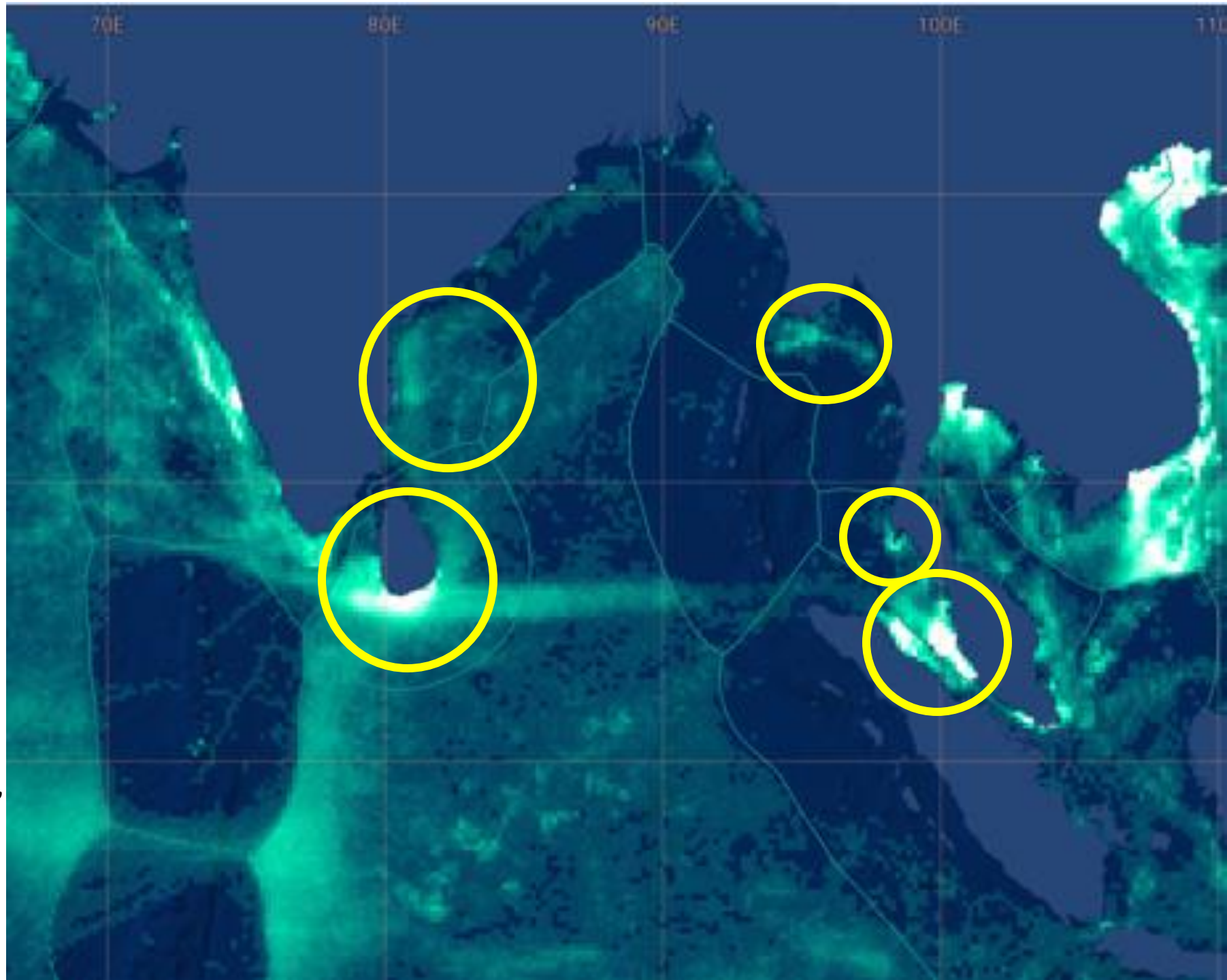
1. Perception that IUU is contributing to overfishing, impacts on resources and lost rents (but rarely, if ever, quantified)
2. The commitments taken on by countries to tackle IUU fishing as part of:
  - NPOA-IUU
  - SDG target (14.6)
  - Obligations for those countries that have acceded to the PSMA
  - WTO disciplines (most recently)
3. Responding to trade pressure or trade barriers that are applied by market countries
  - Most notably the European Union carding of several countries in the RAP region
  - Those importing seafood from Asian countries
4. The growing realization that marine fisheries resources require more effective sustainable management, with application of capacity and effort controls.
  - Existence of IUU undermines efforts to effectively manage capacity and effort and disincentivizes compliance.
  - Recognition that IUU fishing can create conflicts within national fisheries, particularly between large and small scale sectors, but also between different gear segments.

# How serious is IUU in the BOBLME region?

- By its nature IUU fishing extremely hard to quantify
  - Activity typically occurs beyond the reach of fishery enforcement activity
  - Secret – so difficult to monitor and measure
  - Only comes to light when there is a successful, high profile apprehension.
  - IUU is also not something that is typically reported into public information mechanisms (except perhaps PSMA and RFMO processes)
  - Countries reluctant to reveal extent of IUU activity of national fishing fleets and sometimes also IUU by foreign vessels operating in their waters
- Is always changing, and signs that perhaps it is reducing (good news)
  - Many countries have taken more assertive action over the past 5-10 years
    - Increased MCS
    - Port controls/PSMA
    - Vessel management

# Global fishing Watch estimate of fishing effort 2023

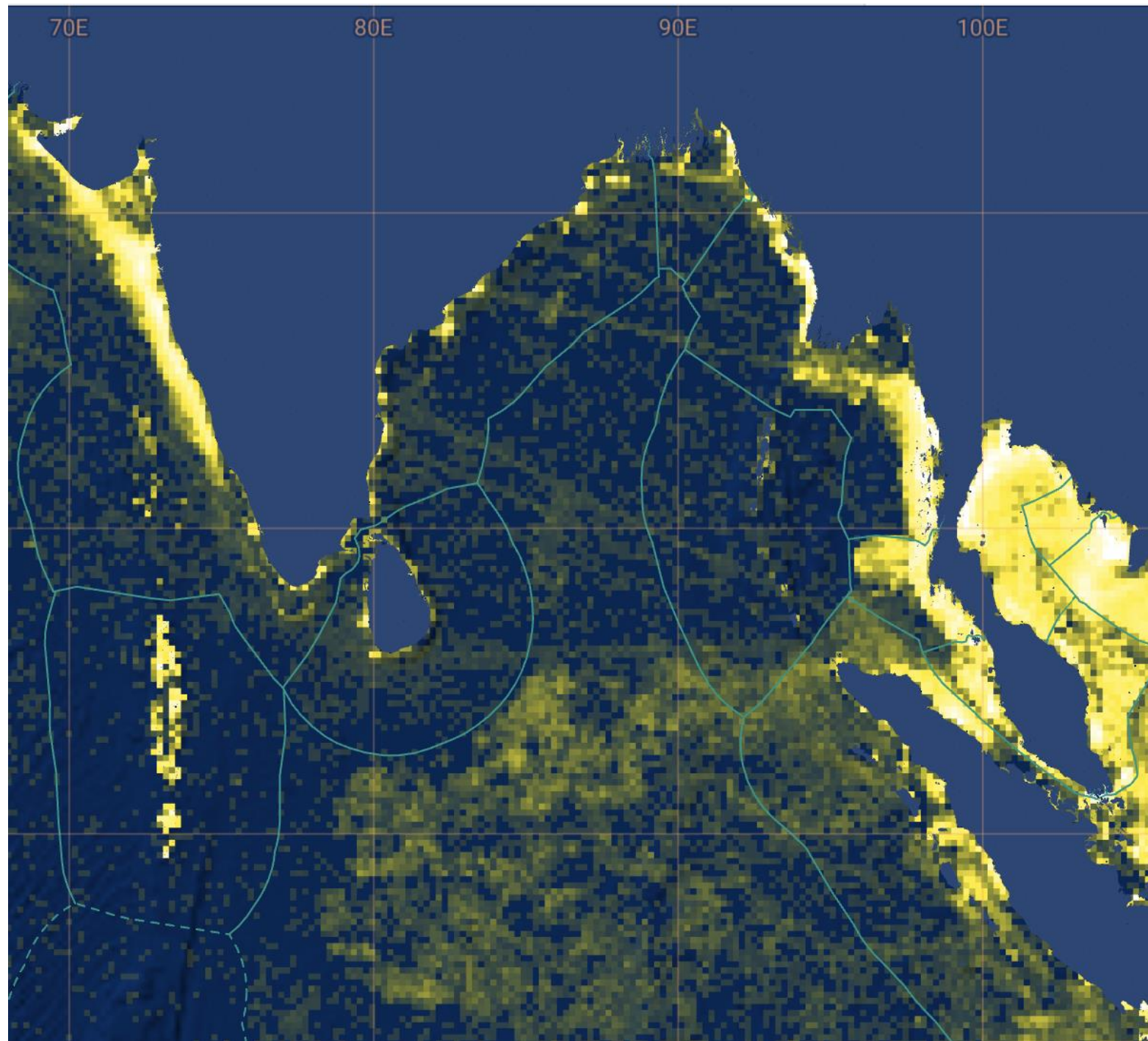
- Locations of fishing effort based on AIS -
- Only larger vessels
- Fishing effort is unevenly distributed
- Note limited activity within the EEZ areas...
- Except Straits of Malacca, Sri Lanka India
- Note this is not IUU!





# GFW lights 2023

- Whole year light imagery
- Fishing effort is unevenly distributed
- Shows intense activity in coastal area
- Highlights smaller scale vessels, not tracked by VMS/AIS
- Limited offshore (except tuna fleets outside BOBLME)
- Note this is not IUU!



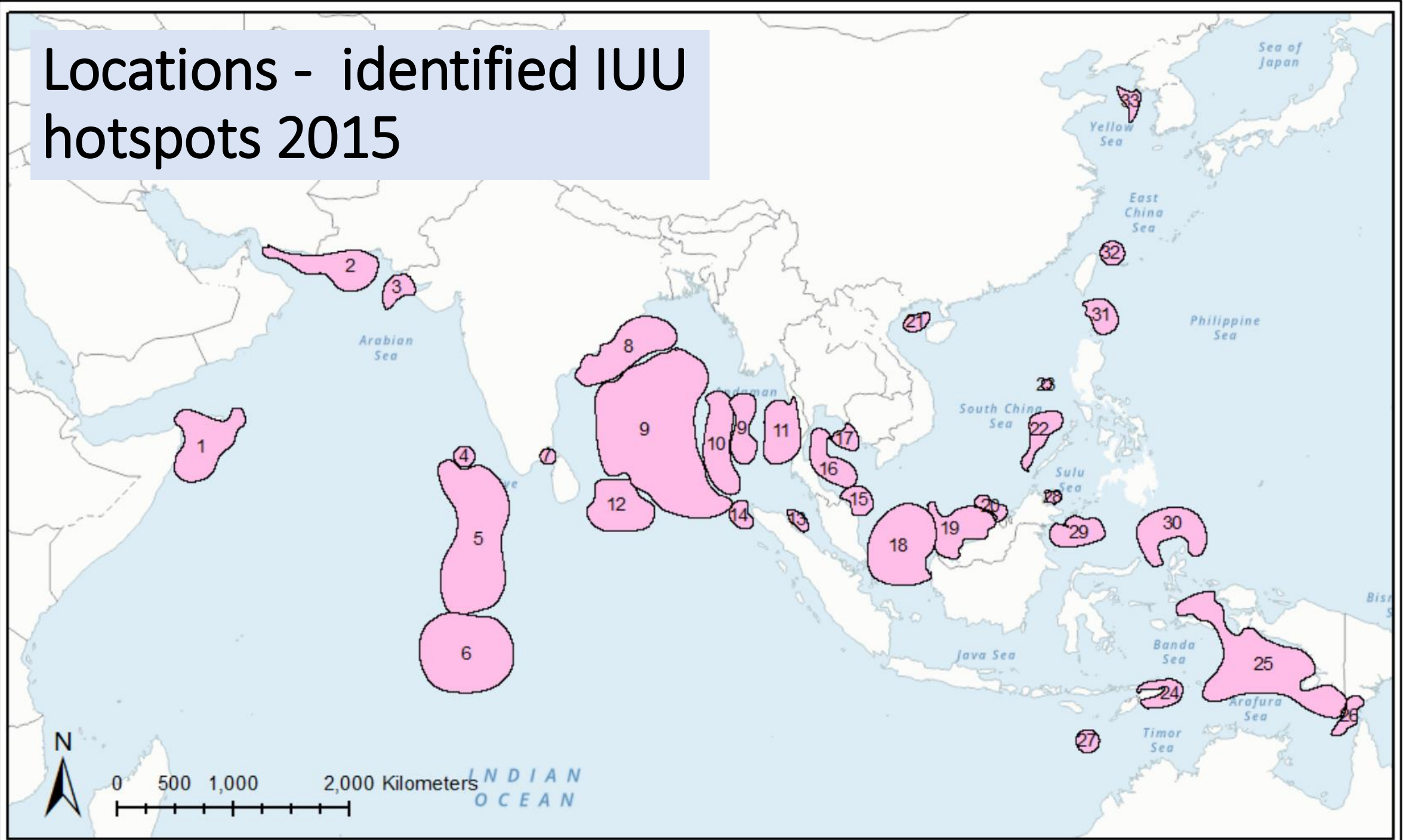
# Identifying & quantifying IUU in the BOBLME

- Number of regional efforts to get an idea of locations and quantify the scale of IUU fishing in the Asian region (\
  - few, if any, national studies
- These used different methods of estimation and extrapolation including:
  - Estimation
    - Case studies, anecdotal information
    - Media reports of IUU fishing
    - Expert respondents
    - Fishery officer respondents
    - Grey literature
    - Peer reviewed journals
  - Extrapolation and or modelling (from the estimations) – gives confidence ranges, and fills gaps

| Study   | IUU catch Tonnes      |           | Value (million USD) |       | % of annual catch reported to FAO | Area/location  |
|---|-----------------------|-----------|---------------------|-------|-----------------------------------|--|
|   | Lower                 | Upper     | Lower               | Upper | %                                 |  |
| MRAG, UBC 2008 cited in APEC (2008)   | 3,400,000 – 8,100,000 |           | -                   |       | 8 – 16%                           | Asia-Pacific. Case studies and examples. Did not make an aggregated estimate (Area 71)   |
| Agnew et al 2009  | 467,865               | 970,589   | 421                 | 874   | 8 – 16%                           | Eastern Indian Ocean (larger than BOBLME)  |
| Agnew et al 2009  | 785,897               | 1,729,588 | 707                 | 1,557 |                                   | Western Central Pacific  |
| APFIC review 2015 (Un-published Presented at APFIC 34 <sup>th</sup> Session ) | 716,071               | 745,814   | 1,128               | 1,854 | 10%                               | Bay of Bengal, Andaman Sea and Malacca Straits. Focussed on illegal activity, primarily by foreign vessels. No extrapolation.  |
|   | 777,478               | 940,498   | 935                 | 1,810 | 8 – 10%                           | South China Sea, Gulf of Thailand, Arafura-Timor Sea, Banda Sea, Savu Sea, Sulu-Celebes, Sulawesi Sea, Makassar Strait, Molucca Sea, Halmaheras Strait   |
| MRAG 2015   | 2,169,766             | 6,540,997 |                     |       |                                   | Asian region. Whole of country EEZ so includes large areas outside of BOB. The figure is the estimate of illegal catch for the countries in Bay of Bengal. The study also estimated unreported catch. Data was extrapolated. |
| CSIRO 2019  | 1,363,000             |           | 4,921.3             |       | 21%                               | Bay of Bengal and Andaman Sea. Focussed on illegal activity, primarily by foreign vessels . Data was extrapolated.   |
| CSIRO 2023  | 1,320,921             |           | 1,301.1             |       | 28%                               | East and West Indian ocean. Use similar methodology to CSIRO 2019  |



# Locations - identified IUU hotspots 2015





# Expected BOBLME project outputs

- **Output 1.2.1** BOBLME countries **join and implement a Regional Plan of Action (RPOA)** on IUU fishing
- **Output 1.2.2** **National POAs-IUU** and **national IUU MCS** systems and Vessel Monitoring System (VMS) strengthened
- **Output 1.2.3** **Tools** for promoting best practice to combat IUU developed and implemented. (MCS, PSM and traceability, and policies and national actions to combat IUU fishing developed and implemented in national pilot/investment projects)
- **Output 1.2.4** **Regional Capacity Development Program** on port inspections, MCS and traceability implemented

# BOBLME project targets

- 20% reduction in IUU
  - over 2014 baseline - which is not clearly specified in Project Document but intended as the APFIC 2015 review and CSIRO 2019 reviews
- RPOA-IUU endorsed
- NPOA-IUU being implemented in 7 countries
- Regional training platform(s) operational

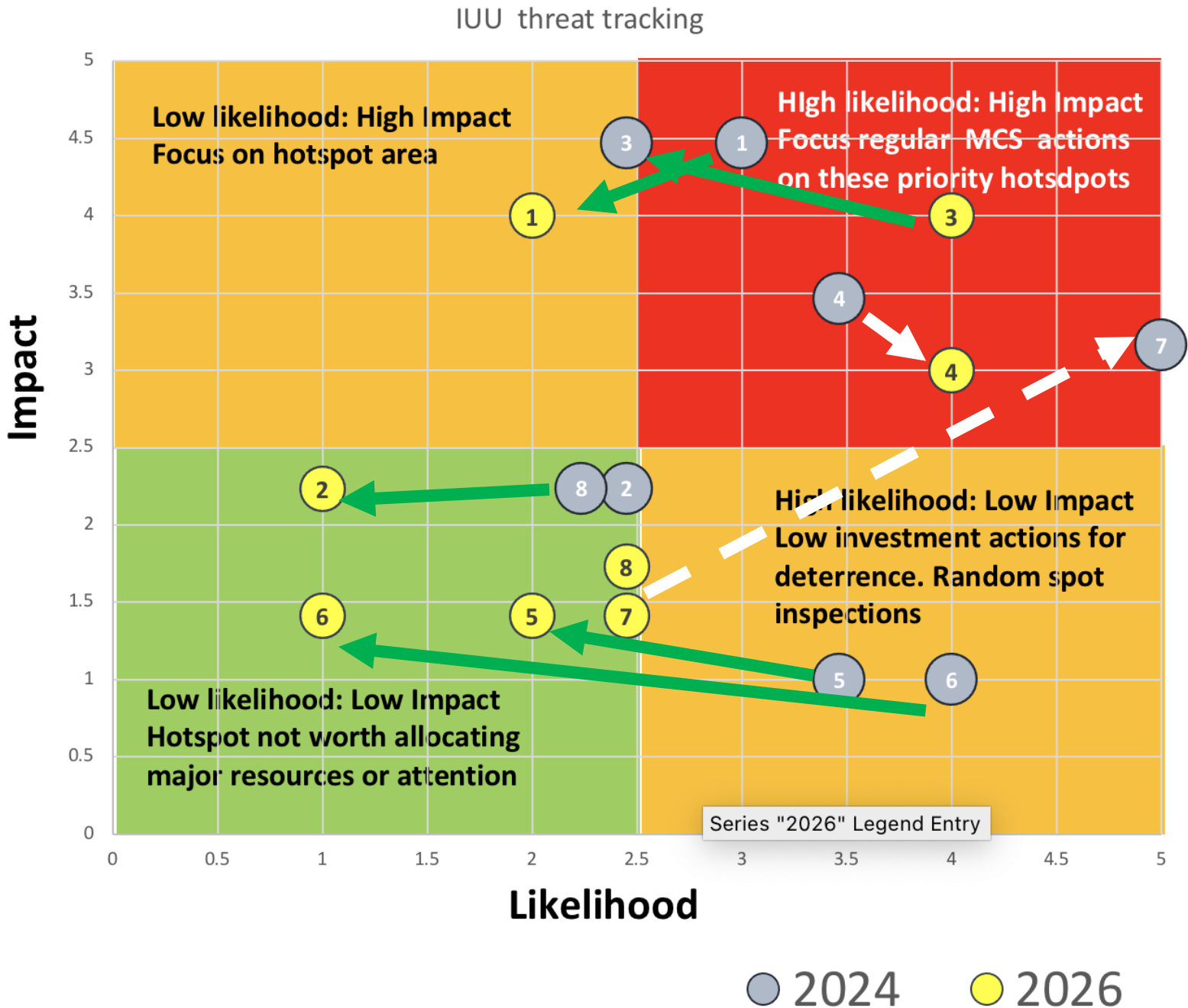
# Quantitative BOBLME project progress tracking on indicator

- **Indicator: 20% reduction in IUU in the BOBLME region**
  - Estimation reduce by
    - ~150,000 tonnes (from 716-746,000 tonnes, 2015 APFIC Baseline)
    - ~273,000 tonnes (1,363,000 tonnes CSIRO 2019)
- If possible try to get an idea of amount of catch (and value) of IUU fish
- Track the illegal fishing component (not unreported and unregulated)
  - Focus on IUU within EEZ
  - Domestic and foreign vessel
  - Exclude RFMO related tuna as covered under the IOTC
- Use expert respondents approach (CSIRO method)
  - Identify IUU activity
  - Occurrences, number of vessels (and types), frequency and develop rough estimate of catch that is IUU

# Quantitative IUU progress tracking

## 20% reduction in IUU in the BOBLME region

- Use expert respondents approach (CSIRO method)
  - Identify IUU activity hotspots
  - Use a risk assessment approach (e.g. likelihood of IUU and consequences (severity of impact))
  - Risk plots – look at change (mainly driven by national actions and shifting IUU fishing opportunities)
  - Positive change recorded as success. 20% = 2 out of 10 hotspots show improvement.





| Likelihood                   |   |                 |   | Impact                     |   |                               |   |
|------------------------------|---|-----------------|---|----------------------------|---|-------------------------------|---|
| Frequency X                  |   | Risk of capture |   | Number of vessels involved |   | Vessel size/capacity (tonnes) |   |
| Daily                        | 5 | None            | 5 | 1,000                      | 5 | 300                           | 5 |
| Weekly                       | 4 | Very low        | 4 | 200                        | 4 | 100                           | 4 |
| Monthly                      | 3 | Low             | 3 | 50                         | 3 | 30                            | 3 |
| Many times in a short period | 2 | Moderate        | 2 | 10                         | 2 | 5                             | 2 |
| A few times a year           | 1 | High            | 1 | 5                          | 1 | 2                             | 1 |

| Hotspot | Risk score |      | Comment                 |
|---------|------------|------|-------------------------|
|         | 2023       | 2026 |                         |
| 1       | 13.4       | 8    | Some improvement        |
| 2       | 5.5        | 2.2  | Improvement             |
| 3       | 11.0       | 16   | Deterioration           |
| 4       | 12         | 12   | No change               |
| 5       | 3.5        | 2.8  | Improvement             |
| 6       | 4          | 1.4  | Improvement             |
| 7       | 15.8       | 3.5  | Significant improvement |
| 8       | 5          | 4.2  | Minor change            |

X axis: Frequency x Risk of capture

Y axis: Number of vessels x vessel capacity

Risk score = likelihood x impact

# Qualitative BOBLME Tracking

- Tracking progress to major indicator (for component) RPOA-IUU
  - Progress towards building agreement/consensus on a BOBLME RPOA-IUU
  - Agreeing on common/harmonized actions
  - Country to country cooperation, actions supporting RFMOs
  - Agreement to share/cooperate (information, training etc)
  - Convene annual regional meeting to share info
- Monitor progress on other key indicators of commitment to combat IUU
  - NPOA-IUU update and implementation
  - Fishing Capacity management
  - Institutional reforms and strengthening (national reports, year by year)
  - Actions taken national reporting to RPOA-IUU
  - SDG-Reporting on SDG 14.6.1
- Development and implementation of training programmes and capacity building (BOBLME/SEAFDEC/BOBP-IGO, FAO, national, other agencies)
- IUU hotspot tracking could be one of these training activities

# RPOA actions

- Coordination
  - Bilateral cooperation and high level reporting mechanism
  - Coordination with other relevant agencies(DOF, marine transport, customs, marine police, navy)
  - Strengthen provincial to national coordination/reporting
  - Establish Dedicated IUU/MCS coordination centre
- Responsibilities
  - Review of laws and regulations
  - Port controls
  - Flag state
  - Coastal state
  - Market state
  - Transshipment
- Strengthening MCS
  - Patrols, inspections
  - ID hotspots
  - Progress on installing VMS on larger commercial vessels and all vessels operating outside EEZ
  - Vessel marking system (e.g Malaysia system)
  - Fisher ID card
- Capacity and effort management
  - Vessel record/licensing and registration (capacity controls)
  - Establish fishing capacity for different vessels and gears in accordance with MMSY concept (as part of capacity management and reduction of over capacity, which drives IUU fishing)
  - NPOA-capacity? Malaysia started NPAOO-capacoity plan 2 in 2015; Thailand FMP (capacity/effort); VietNam?

# Status of NPOAs

| Country    | NPOA-IUU      | NPOA-Capacity  | NPOA-MCS | VMS/FMC Centre |
|------------|---------------|----------------|----------|----------------|
| Bangladesh | Yes 2020      | No             |          | Yes            |
| India      | No            | No             |          | Yes            |
| Indonesia  | Yes 2012-2016 |                |          | Yes            |
| Malaysia   | Yes 2013      | 2015? (plan 2) |          | Yes            |
| Maldives   | Yes 2019      |                |          | Yes            |
| Myanmar    | Yes 2015      |                |          | Yes            |
| Sri Lanka  | Yes 2015      |                |          | Yes            |
| Thailand   | Yes 2015-2019 |                |          | Yes            |
|            |               |                |          |                |
|            |               |                |          |                |
|            |               |                |          |                |