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Transboundary Fisheries Management: The Malaysian Perspective

David M. Ong

Research Professor of International & Environmental Law, Nottingham Trent University, UK.

Email: davidm.ong@ntu.ac.uk

Transboundary Fisheries Management: The Malaysian Perspective

Background

Malaysia's geographical location, lying between two Oceans – the Indian and Pacific, as well as nestled within a semi-enclosed sea, namely, the South China Sea, means that it faces a number of transboundary fisheries management scenarios with its neighbouring countries in the Southeast Asian region. Furthermore, Malaysia's unique situation, whereby Peninsular Malaysia is physically separated from its two federal states of Sarawak and Sabah on the Borneo island by the southern part of South China Sea, places this country in the even more complex position of having transboundary fishery management issues with a number of neighbouring countries across several different marine sub-regions. Specifically, these States include, *inter alia*, Thailand, Viet Nam and Indonesia in the aforementioned South China Sea;¹ Indonesia and Thailand (again) as well as Myanmar (Burma) in the Malacca Straits; and Indonesia (yet again) as well as the Philippines, in the Sulu and Celebes Seas.

Across the world generally, the management of transboundary fish stocks has been described as a complex mosaic, with over 40 regional fisheries bodies around the globe, with some 20 of these having management functions.² As for the types of fisheries involved in these transboundary fisheries management situations, the UN Food and Agriculture Organization (FAO) refers to a number of different types of 'shared' fish stocks, as follows: 1) *highly migratory stocks*, which range across the different maritime jurisdiction zones (territorial seas, contiguous zones and 200 nautical mile (nm) Exclusive Economic Zones (EEZ)) of a number of these countries, as well as the high seas areas beyond them, consisting of species listed in Annex 1 of UNCLOS (e.g. tunas, marlins, swordfish, sailfish, sharks, frigate mackerels); 2) *straddling stocks*, consisting of species that are found in the EEZ of one or more countries and in the adjoining high seas areas; 3) *transboundary stocks*, consisting of species that exist in the EEZs of two (or more) countries but mostly not on the high seas, and 4) high seas fish stocks - discrete fish stocks found exclusively in the high seas.³

Moving to the specific, Malaysian perspective on its transboundary fisheries management issues, it is possible to state that, overall, Malaysia's transboundary marine fisheries are focussed within four main geographical areas, namely, 1)

¹ The relatively small maritime jurisdiction zones of Cambodia (facing the Gulf of Thailand), Brunei (facing the South China Sea) and Singapore (nestled between Indonesian and Malaysian waters at the meeting point between the Malacca Straits and South China Sea) will not be covered in this discussion unless directly pertinent to the Malaysian transboundary fisheries management issues considered here.

² See: 'Introduction' to Dawn A. Russell and David L. VanderZwaag (eds), *Recasting Transboundary Fisheries Management Arrangements in Light of Sustainability Principles: Canadian and International Perspectives*, Brill (2010) 1–6, at 1, citing UN, Food and Agriculture Organization (FAO), Fisheries and Aquaculture Department, 'RFB Fact Sheets'. Accessible at: http://www.fao.org/fi_shery/rfb/en

³ See: Gordon Munro, Annick Van Houtte, and Rolf Willmann, *The conservation and management of shared fish stocks: legal and economic aspects*, FAO Fisheries Technical Paper 465, FAO, UN: Rome (2004) Accessible at: <http://www.fao.org/3/y5438e/y5438e00.htm#Contents>

1 the South China Sea, whose waters lap at the shores of the entire eastern
2 coastline of Peninsular Malaysia and then stretch all the way to the north-
3 western coastline of the Borneo island, wherein lie Sarawak and Sabah; 2) the
4 Straits of Malacca, lying between the western coast of the Peninsular and the
5 eastern coast of the Indonesian island of Sumatra; 3) the southern sector of the
6 Andaman Sea area, which is bordered by Myanmar, Thailand, Indonesia and the
7 north-western part of Peninsular Malaysia, which corresponds to the northern
8 part of the Malacca Straits; and 4) the Sulu-Celebes Sea area lying off the eastern
9 coastline of the Malaysian state of Sabah on Borneo island, with the Philippines
10 to the north (east) and Indonesia to the south (east). All four of these main
11 (regional) fisheries grounds are located in the accompanying maps of Malaysia
12 and its surrounding waters (Figures 1 & 2, below).⁴

16 **Maps of Malaysia, showing regional/sub-regional seas, where the main**
17 **(transboundary) fishing grounds are located**

20 **Figure 1**



55 **Figure 2**

59 ⁴ See: Information on Fisheries Management in Malaysia (April, 2001) FAO website, accessible at:
60 <http://www.fao.org/fi/oldsite/fcp/en/mys/body.htm>



Having outlined the regional and sub-regional locations wherein transboundary fisheries management issues arise for Malaysia in relation to its neighbouring States, it is also important to note the presence of distant-water fishing vessels within these fishing grounds that hail from the wider regional setting, notably, mainland China, as well as Taiwan. Therefore, it is imperative to highlight the need for effective transboundary fisheries management by Malaysia and her neighbours in this region. This is within the context of several significant factors that are combining to form a challenging outlook for regional fisheries in this geographical area as a whole. Specifically, steep population growth and rapid industrialization has resulted in the following trends:

- 1) Increased fishery consumption levels – both in overall and per capita terms, and correspondingly rising levels of fishing effort to feed this consumption growth, with fish and seafood still being a major protein source for much of the population of Southeast Asia, and Malaysia itself;
- 2) Increased, and in some cases poorly regulated, industrialization causing marine pollution and thereby negatively affecting ecosystems and habitats that sustain fisheries;
- 3) Illegal, Unregistered and Unregulated (IUU) fishing, both from regional and extra-regional fishing vessels, resulting in over-fishing and wasteful fishing practices.

However, as Teh *et al* note, ‘despite these trends, a prevailing lack of effective fisheries management means that overfishing remains a persistent societal and ecological concern in the South China Sea (SCS).’⁵ So, they undertake to ‘review

⁵ Louise S. L. Teh, Allison Witter, William W. L. Cheung, U. Rashid Sumaila, Xueying Yin, ‘What is at stake? Status and threats to South China Sea marine fisheries’, *Ambio*, Vol.46, No.1 (2017) 57-72, at 57-58, citing Stobutzki, I.C., G.T. Silvestre, A. Abu Talib, A. Krongprom, M. Supongpan, P. Khemakorn, N. Armada, and L.R. Garces, ‘Decline of demersal coastal fisheries resources in three developing Asian countries’, *Fisheries Research*, Vol.78 (2006) 130–142.

1 whether and how prevailing governance systems can address current problems
2 such that fisheries in the SCS can be sustained into the future.’⁶ This approach
3 appears to assume fisheries co-operation among the littoral States is inevitable,
4 whereas Franckx raises the question as to whether the very nature of common
5 or shared resources such as fisheries give rise to disputes, rather than
6 stimulating co-operative behaviour between States with access to these shared
7 resources.⁷
8
9

10 As for the international legal framework governing the relationships between
11 littoral States in this region over fisheries issues, it should be noted that with the
12 exception of Taiwan, all of these regional and extra-regional countries, as well as
13 Malaysia itself, are parties to the 1982 UN Convention on Law of the Sea
14 (UNCLOS).⁸ On the other hand, only a few of the regional and extra-regional
15 States (not including Malaysia) are parties to the 1995 Fish Stocks Agreement.⁹
16
17

18 **Introduction**

19
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21 Having dealt with the factual and legal backgrounds to transboundary fisheries
22 management issues as they pertain to Southeast Asian countries in general and
23 Malaysia in particular, it is incumbent upon us to construct a framework for both
24 the policy and legal analysis of transboundary fisheries management issues, from
25 a Malaysian perspective.
26
27

28 The following points culled from the relevant factual and legal backgrounds
29 (above) arguably underpin the elaboration of this policy and legal analytical
30 framework: First, it is notable that despite the existence of a well-known and
31 generally well-regarded regional organization that most Southeast Asian States
32 are members of, namely, the Association of South East Asian Nations
33 (ASEAN)¹⁰ there is to date no established regional fisheries management
34 organization (RFMO) for the South China Sea and its adjacent marine areas. This
35 is unlike other major regions clustered around semi-enclosed seas, such as the
36 General Fisheries Commission for the Mediterranean (GFCM), or representing
37 significant oceanic fisheries areas, like the Northwest Atlantic Fisheries
38 Organization (NAFO) for example.¹¹ A recent FAO publication provides a history,
39 description and overview of the performance review process of 19 regional
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45 ⁶ Teh *et al* (2017) *ibid*.

46 ⁷ Erik Franckx, ‘Fisheries in the South China Sea: A Centrifugal or Centripetal Force?’, *Chinese*
47 *Journal of International Law*, Vol.11 (2012) 727-47.

48 ⁸ Opened for signature on 10 December, 1982 & entered into force on 16 November, 1994. Text &
49 related information accessible at:

50 https://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm

51 ⁹ Only Indonesia, the Philippines, Thailand, and Viet Nam are parties to this Agreement. Full title:
52 Agreement for the implementation of the provisions of the Convention relating to the
53 conservation and management of straddling fish stocks and highly migratory fish stocks, opened
54 for signature on 4 December 1995; in force on 11 December, 2001. Text & related information
55 accessible at:

56 https://www.un.org/Depts/los/convention_agreements/convention_overview_fish_stocks.htm

57 ¹⁰ ASEAN is presently composed of ten Member States but has so far refrained from entering
58 the regional fisheries debate, beyond promoting cooperation for the development of *aquaculture*
59 through the ASEAN Ministerial Understanding on Fisheries Cooperation (1983). Accessible at: ...

60 ¹¹ More information on NAFO’s work is accessible at: <https://www.nafo.int>
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1 fishery bodies (RFBs) across the world, including the implementation measures
2 that the RFBs in question have taken following their performance reviews.¹²
3

4 Second, in the face of this relative lack of formal regional and/or sub-regional
5 fisheries organizations, a couple fisheries-related initiatives focussed on
6 international co-operation and management of fisheries as a shared or
7 commons-type transboundary resource at the sub-regional level within the
8 wider, South China Sea region, are gaining traction. Third, as a corollary to the
9 informal relationships that are coalescing around these sub-regions of the South
10 China Sea, stricter national enforcement measures are being upgraded and
11 implemented.
12
13

14 In relation to these three background points, Malaysia has actively participated
15 in the second of these (sub-regional initiatives) and appears to have geared-up
16 (at least legally) towards exerting more forceful measures against illegal fishing
17 in its waters. Overall, Malaysia remains a passive rather than active participant
18 on these issues, although there are signs that it is making greater efforts at
19 engagement with so-called ecosystem-based fisheries management initiatives by
20 various regional and sub-regional organizations and fora.
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24 **Legal Status of Malaysia and Neighbouring States, re: UNCLOS & Fish Stocks** 25 **Agreement** 26

27
28 Three of the littoral States in the greater South China Sea region including
29 Malaysia, Viet Nam, and Myanmar are parties to UNCLOS, but not to the Fish
30 Stocks Agreement; whereas three other States, namely, Thailand, Indonesia, and
31 the Philippines are parties to both UNCLOS and the Fish Stocks Agreement; with
32 the People's Republic of China being a party to UNCLOS and signatory (&
33 therefore *not* yet a party) to the Fish Stocks Agreement. Within UNCLOS itself,
34 aside from the fisheries provisions under Part VII dealing with the High Seas,
35 several provisions from Part V, dealing with the 200 nautical mile (nm) Exclusive
36 Economic Zone (EEZ) regime, are relevant for transboundary fisheries
37 management purposes. The specific treaty provisions are as follows:
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42 a) Paragraphs 1 and 2 of Article 63, dealing with fish stocks occurring within the
43 EEZs of two or more coastal States, or within the EEZ and a high seas area
44 beyond and adjacent to EEZs, provides that these States shall seek, either directly
45 or through appropriate sub-regional or regional organizations, to agree upon the
46 measures necessary to coordinate and ensure the conservation and development
47 of such stocks; and
48
49

50
51 b) Article 64 on 'highly migratory species' provides in paragraph 1 that the
52 coastal State and other States whose nationals fish in the region for these species
53 shall cooperate either directly, or through appropriate international
54 organizations, to ensure the conservation and optimum utilization of such
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57 ¹² See: Péter D. Szigeti and Gail L. Lugten, *The implementation of performance review reports by*
58 *regional fishery bodies, 2004–2014*, FAO Fisheries and Aquaculture Circular No. 1108, Rome, Italy
59 (2015) Accessible at: <http://www.fao.org/3/a-i4869e.pdf>
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species throughout the region, both within and beyond the EEZ.

Overall, the implications of both these UNCLOS Articles (63 & 64) along with other, related provisions on anadromous (Article 66) and catadromous (Article 67) species, is that neighbouring States are obliged to co-operate with each other, either directly or through relevant international and/or regional fisheries management organizations (RFMOs) to conserve, develop, and manage such fisheries to ensure their optimum utilization. As already noted (above) there are presently no such overarching (formal) RFMOs in the Southeast Asia/South China Sea region that Malaysia is specifically situated within. On the other hand, both Malaysia and her neighbouring Southeast Asian States within the Association of Southeast Asian Nations (ASEAN) were clearly aware of the implications of their extended maritime jurisdictions under the continental shelf, and especially the EEZ regimes of the 1982 UNCLOS. Notably, soon after the UNCLOS was adopted and opened for signature (on 10 December, 1982), the Fifth Meeting of the ASEAN Ministers on Agriculture and Forestry in Singapore on 20-22 October, 1983 yielded an ASEAN Ministerial Understanding On Fisheries Cooperation Singapore.¹³ This Understanding, *inter alia*, provided as follows:

'NOTING the United Nations Convention on the Law of the Sea, particularly the provisions relating to Exclusive Economic Zones, and the impact it will have on fisheries development in the ASEAN region;

BELIEVING that management and conservation of fisheries resources of Exclusives Economic Zones in ASEAN region rest with the Government of ASEAN, and that closer cooperation is necessary among the ASEAN member countries;

DO HEREBY DECLARE that we have reached consensus, and will take necessary action toward closer cooperation in the following areas of fisheries:

A. In the management and conservation, of the fisheries resources of the Exclusive Economic Zones in the ASEAN region through:

(i) exchanging Fisheries information and expertise relevant to Fisheries development and management.

(ii) coordinating action in Fisheries resources research activities undertaken by national institutes in the member countries;

(iii) undertaking appropriate action in the evaluation and management of shared stocks and migratory species in the ASEAN region;

(iv) undertaking appropriate action for the rational utilization of fisheries in Exclusive Economic Zones.

B. In the sharing and transfer of technology at all levels to improve the socioeconomic status of the fishermen;

¹³ Adopted on 22 October 1983. Text accessible at: <https://www.asean.org/wp-content/uploads/images/2012/Economic/AMAF/Agreements/ASEAN%20Ministerial%20Understanding%20On%20Fisheries%20Cooperation.pdf>

1 C. in all aspects of Aquaculture to increase production and income of fish
2 farmers;

3
4 D. in all aspects of Post-Harvest Technology in support of production and
5 marketing efforts; E. In promoting the trade and marketing of fish and fishery
6 products among the ASEAN countries as well as with other countries;

7
8
9 F. In identifying common areas for commercial cooperation in fisheries; and

10
11 G. in working towards a common stand and understanding on regional and
12 international matters in fisheries.' (emphasis added).
13

14
15 From a Malaysian perspective, the above ASEAN Ministerial Understanding
16 initially yielded successful co-operation between Malaysia and her near
17 neighbours. For example, Lim mentions 'a joint private fishing venture between
18 Thailand and Malaysia under which Thai crews will man Malaysian fishing
19 vessels and land the catch in Kuantan port (on east coast of Peninsular) Malaysia,
20 after which the fish will be sold to Thai canneries for processing and export.'¹⁴
21 Unfortunately, as Lim then notes, '(t)hese practical arrangements, however, are
22 the exceptions rather than the rule. The main impediment to them is the
23 perception by some ASEAN States' governments that in order not to prejudice
24 their rights in disputed waters, the State must not only claim the maximum EEZ
25 possible but enforce domestic legislation regardless of the fact that the waters in
26 question are the subject of overlapping claims between ASEAN member States.'¹⁵
27 For example, the above undertakings for intra-ASEAN fisheries co-operation did
28 not prevent sporadic arrests of a number of Filipino and Thai fishing vessels by
29 Malaysia during the late 1980s that resulted in bilateral tensions between these
30 ASEAN neighbours.¹⁶
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36 A particularly important commercial species in this regard is tuna, several
37 species of which traverse the South China Sea region with their migratory
38 patterns. Within this context, Malaysia is nestled between and within the
39 designated areas of two major, oceanic tuna-based RFMOs, namely, 1) the Indian
40 Ocean Tuna Commission (IOTC)¹⁷ – an intergovernmental organisation
41 established under the auspices of the Agreement for the Establishment of the
42 Indian Ocean Tuna Commission, which is responsible for the management of
43 tuna and tuna-like species in the Indian Ocean (to which Malaysia is a
44 member)¹⁸; and 2) the Western and Central Pacific Tuna Commission (WCPFC)¹⁹
45 - established by the Convention for the Conservation and Management of Highly
46 Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC
47 Convention) to which Malaysia is *not* a party.
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53 ¹⁴ Raymond S. K. Lim, 'EEZ Legislation of ASEAN States', *International and Comparative Law
54 Quarterly (ICLQ)*, Vol. 40, No. 1 (Jan., 1991), pp. 170-183, at 173.

55 ¹⁵ *Ibid.*

56 ¹⁶ *Ibid.*, at 173-75.

57 ¹⁷ Adopted on 25 November, 1993 and entered into force on 27 March, 1996. Accessible at:
58 <https://iotc.org/>

59 ¹⁸ Having joined on 22 May, 1998.

60 ¹⁹ Adopted on 5 September, 2000 and entered into force on 19 June 2004. Accessible at:
61 <https://www.wcpfc.int/convention-text>
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Malaysian Legal and Institutional Framework for (Transboundary) Fisheries Management

Moving to the question of whether there are any Malaysian national fishing laws and regulations for transboundary stocks – the first thing to note is that there appears to be no directly applicable Malaysian fisheries laws covering this topic. Thus, the Fisheries Act, 1985 (as amended)²⁰ does not explicitly regulate ‘shared’, ‘transboundary’, or ‘straddling’ fish stocks, nor even ‘highly migratory species’. However, there is scope for confusion between the definitions of ‘Malaysian fisheries waters’ and ‘maritime waters’ of the Malaysian 200nm EEZ. Thus, under Section 2, on ‘Interpretation’, having initially defined ‘Malaysian fisheries waters’ as meaning ‘maritime waters under the jurisdiction of Malaysia over which exclusive fishing rights or fisheries management rights are claimed by law and includes the internal waters of Malaysia, the territorial sea of Malaysia and the maritime waters comprised in the exclusive economic zone (EEZ) of Malaysia’. However, this definition is slightly at variance to the definition proffered by the 1984 EEZ Act,²¹ which provides that ‘Malaysian fisheries waters’ means ‘all waters comprising the internal waters, the territorial sea and the exclusive economic zone of Malaysia in which Malaysia exercises sovereign and exclusive rights over fisheries’.

Section 2 of the subsequent 1985 Fisheries Act then goes on to define ‘maritime waters’ as meaning ‘areas of the sea adjacent to Malaysia, both within and *outside* Malaysian fisheries waters and includ(ing) estuarine waters, and any reference to marine culture system, fishing or fisheries shall be construed as referring to the conduct of any of these activities in maritime waters;’ (*emphasis added*) thereby at least implicitly suggesting that Malaysian jurisdiction over *all* fishing activities extends to such ‘maritime waters’ as lie *outside* (i.e. beyond) fisheries waters within the Malaysian EEZ. This implicit suggestion is arguably compounded when read alongside the following provision in the 1984 EEZ Act, Section 8 of which, entitled: ‘Written law relating to fisheries to be applicable in the zone and on the continental shelf’, provides as follows: ‘Except as otherwise provided in this Act, any written law relating to fisheries shall be applicable in the exclusive economic zone and on the continental shelf with such necessary modifications or exceptions as may be provided in an order made under section 42.’

Given that the continental shelf of a coastal State can extend *beyond* the 200nm EEZ limit provided certain geological and/or geomorphological criteria are fulfilled under Article 76 of UNCLOS, this suggests that Malaysian fisheries law can equally extend beyond this limit, into the high seas area. The above ambiguity can be reconciled within the international law of the sea framework established by UNCLOS by limiting these domestic provisions, which implicitly

²⁰ Full title: Fisheries Act 1985, as at 1 November, 2012. Laws of Malaysia, Act 317. Accessible at: <http://www.agc.gov.my/agcportal/uploads/files/Act%20317%20-%20Clean%20draft.pdf>

²¹ Full title: Exclusive Economic Zone Act 1984, as at Laws of Malaysia, Act 311. Accessible at: <http://www.agc.gov.my/agcportal/uploads/files/Publications/LOM/EN/Act%20311%20-%20Exclusive%20Economic%20Zone%20Act%201984.pdf>

1 purport to extend Malaysian fisheries laws beyond 200nm, *only* to that of
2 'sedentary species' within the continental shelf under Article 77(4) of UNCLOS.
3 But until a legally authoritative statement is made to this effect, the scope for
4 confusion arguably remains.
5

6 In any case, such fishing, and other related activities by foreign fishing vessels
7 are specifically governed by Part V of the 1985 Act, regarding 'Foreign Fishing
8 Vessels', section 15(1) of which provides, *inter alia*, that 'Subject to subsection
9 (2), no foreign fishing vessel shall do any of the following in Malaysian fisheries
10 waters: (a) fish or attempt to fish; or (b) ... conduct any techno-economic
11 research or survey of any fishery, ...' Moreover, under section 16 of the
12 Malaysian Fisheries Act, 1985 entitled: 'Passage of foreign fishing vessel through
13 Malaysian fisheries waters', sub-section (1) provides that, 'subject to sub-
14 sections (2) and (3), a foreign fishing vessel may enter Malaysian fisheries
15 waters, for the purpose of passage through such waters in the course of a voyage
16 to a destination outside such waters.'²² Sub-section (3) of section 16 then
17 requires that: 'The master of a foreign fishing vessel entering Malaysian fisheries
18 waters for the purpose mentioned in subsection (1) shall notify by radio, telex or
19 facsimile in the English or Malay Language an authorized officer of the name, the
20 flag State, location, route and destination of the vessel, the types and amount of
21 fish it is carrying and of the circumstances under which it is entering Malaysian
22 fisheries waters.' Sub-section (4) of section 16 then states that: 'Every foreign
23 fishing vessel entering Malaysian fisheries waters for the purpose mentioned in
24 subsection (1) shall—
25

26 (a) without prejudice to the requirement to observe any other law of Malaysia
27 which may be applicable, observe such regulations as may be made under
28 section 61, including regulations regarding the stowage of fishing appliances;
29 and
30

31 (b) return to a position outside such waters as soon as the purpose for which it
32 entered such waters has been fulfilled.'
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35 Finally, under section 17, entitled: 'Undertaking to be included in international
36 fishery agreement' it is provided that: 'Every international fishery agreement
37 referred to in section 15 shall include an undertaking by the government of the
38 country, or by the international organization, which is a party to the agreement
39 with the Government of Malaysia to comply or ensure compliance by its fishing
40 vessels with the provisions of this Act.'
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47 There are a number of points to be made respecting the compatibility of the
48 above Malaysian law with the rights and obligations in the 1982 UNCLOS. First,
49 the current section 16(1) is the result of a 1993 amendment, made to the original
50 1985 provision.²³ The (original) provision in the 1985 Act stated that: 'a foreign
51 fishing vessel may enter Malaysian fisheries waters, for the purpose of innocent
52 passage through such waters in the course of a voyage to a destination outside
53 such waters.'" This original provision was clearly at variance with the implicit
54 inclusion of fishing vessels of all flag States to the freedom of navigation in the
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59 ²² Fisheries Act, 1985, Laws of Malaysia, Act 317.

60 ²³ Fisheries Amendment Act, 1993, section 9(b), Laws of Malaysia, Act A854, 15 July, 1993.
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1 EEZs of coastal States, as provided by UNCLOS Article 58.²⁴ Second, this original
2 provision respecting ‘innocent passage’ for foreign-flagged fishing vessels in the
3 1985 Fisheries Act was an *inversion* of the navigational freedom otherwise
4 enjoyed by such vessels within an EEZ involving an expansive interpretation of
5 Malaysian sovereign rights and jurisdiction over living resources within its EEZ,
6 coupled with a discriminatory approach to any foreign-flagged fishing vessels
7 found within its EEZ.
8
9

10 A *policy* justification for this (previously) legally untenable position that has now
11 been rectified arises from the multiple incursions by fishing vessels from
12 Thailand within the Malaysian EEZ, as well as other neighboring Southeast Asian
13 countries, from the late 1970s to the present day. Valencia, for example, has
14 noted in relation to the 1985 Act, that ‘the problem of access primarily concerns
15 Thai fishermen who were fishing in Malaysian waters before Malaysia declared
16 an EEZ (in 1980).’²⁵ A more recent study observes that: ‘Thailand’s reconstructed
17 catch totalled 266 million t(onnes) from 1950-2010, which was 2.8 times the
18 reported landings of 95 million t(onnes). Of total reconstructed catch, 176
19 million t(onnes) originated from outside the Thai(land) EEZ, of which
20 approximately 75% was caught by industrial fishing vessels either operating
21 illegally in foreign waters or not properly reporting their catches. *This suggests a*
22 *failure of flag-state control, and indicates that stricter monitoring and enforcement*
23 *of the Thai industrial fishing fleet should be pursued to mitigate un-controlled*
24 *fishing effort both in the Thai EEZ and in the EEZs of other countries (as well as)*
25 *in the High Seas.’*²⁶ (*emphasis added*)
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31 Having observed that the Malaysian national legal framework for regulating
32 shared fish stocks generally is arguably inadequate, it is important to emphasize
33 the negative impacts of continuing incursions by foreign fishing vessels within
34 the Malaysian EEZ, and even her territorial sea. As Yahaya has noted, the official
35 view held by fishery managers in Malaysia even by the late 1980s was that
36 fishery resources in the inshore waters (within 12 nautical miles) had already
37 been biologically overfished.²⁷ The dualistic nature of the Malaysian fisheries
38 sector, composed of large-scale commercialized, trawler fishing on the one hand,
39 and traditional small-scale artisanal fishing boats on the other,²⁸ also highlights
40 the arguably unique socio-economic factors at play in this country. As Yahaya
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45 ²⁴ Article 58(1) of UNCLOS states that: ‘In the exclusive economic zone, all States, whether coastal
46 or land-locked, enjoy, subject to the relevant provisions of this Convention, the freedoms referred
47 to in article 87 of navigation and overflight and of the laying of submarine cables and pipelines,
48 and other internationally lawful uses of the sea related to these freedoms, such as those
49 associated with the operation of ships, aircraft and submarine cables and pipelines, and
50 compatible with the other provisions of this Convention.’

51 ²⁵ Mark J Valencia, *Malaysia and the Law of the Sea: The Foreign Policy Issues, the Options and*
52 *Their Implications*, Kuala Lumpur, Malaysia: Institute of Strategic and International Studies (ISIS)
53 (1991) at 96.

54 ²⁶ Lydia Teh, Dirk Zeller and Daniel Pauly, *Preliminary Reconstruction of Thailand’s Fisheries*
55 *Catches: 1950-2010*, Fisheries Centre, The University of British Columbia, Working Paper Series,
56 Working Paper #2015-01 (2015) 14 pp., Abstract, at 1, Accessible at:
57 <http://www.searoundus.org/doc/publications/wp/2015/Teh-et-al-Thailand.pdf>

58 ²⁷ Jahara Yahaya, ‘Fishery Management and Regulation in Peninsular Malaysia: Issues and
59 Constraints’, *Marine Resource Economics*, Vol.5 (2) (January, 1988) 83-95, at 83-84.

60 ²⁸ *Ibid.*, 84-86.
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1 observed, the glaring inequalities between these two forms of fishing effort are
2 exacerbated by the fact that the majority of the commercialized, trawler
3 fishermen are Chinese (Malaysians), while the artisanal fishermen are
4 predominantly Malays,²⁹ hence perpetuating historic ethnic divisions within
5 Malaysian society as a whole. These arguably unique characteristics of Malaysian
6 fisheries serve to emphasize that: '(a) comprehensive multidisciplinary approach
7 is needed to transform and commercialize traditional, experience-dependent
8 culture systems into technology-packaged systems based on scientific
9 methods.'³⁰

11
12 Notwithstanding these quintessential attributes of the Malaysian fisheries
13 industry as an indicative aspect of wider Malaysian society, Malaysian fisheries
14 policy has shifted to overtly managerial efforts at conservation of regional
15 fisheries that traverse the extended national maritime (continental shelf and
16 EEZ) jurisdictions of Malaysia and her coastal State neighbours. As Omar *et al*
17 already proposed in 1992, '(f)uture management efforts should be based on a
18 fuller understanding of the fishery stock and regional management of fish
19 stocks.'³¹ Moreover, as they noted presciently even then, '(a)quaculture is often
20 seen as a plausible alternative in order to augment supplies from the capture
21 fisheries. ... There is also substantial potential for the development of
22 recreational fisheries.'³² However, there are continuing difficulties with
23 accommodating these different fishing activities within the current Malaysian
24 (national) legal and institutional framework for fisheries conservation and
25 management. For example, inland fisheries and aquaculture regulations are
26 issued by (Malaysian) State authorities, whereas marine fisheries and (marine)
27 aquaculture are a Federal concern. Unfortunately, neither the Kedah State
28 Fisheries (Riverine) Rules (1992) nor the Perak State Fisheries (Riverine) Rules
29 (1992) make any provision on aquaculture.³³ In this regard, it is significant to
30 note that Malaysia is a member of the Network of Aquaculture Centres in Asia
31 and the Pacific (NACA), as well as being a member and hosting the Secretariat of
32 Inter-governmental Organisation of Marketing Information and Technical
33 Advisory Services to the Fishery Industry in the Asia-Pacific (INFOFISH).³⁴

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35 As a relatively recent (2013) review of Malaysian Laws and Policies in Relation
36 to the Implementation of Ecosystem Approach to Fisheries Management
37 summarizes succinctly, '(t)he fragmented institutional environment governing
38 the management of fisheries-based ecosystems is a major impediment to their
39 sustainability. ... At the core of the problem is the absence of a single institution
40 that can champion the cause of conservation and management of fisheries and
41 fisheries-based ecosystems. Different government agencies are involved, and
42 each is governed by its own set of rules and regulations to cater to specific

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²⁹ *Ibid.*

³⁰ Ishak Hj Omar, Kusairi Mohd Noh, & Nik Mustapha Raja, 'Malaysian fisheries policy: Search for new grounds', *Marine Policy*, Volume 16, Issue 6 (November, 1992) 438-450 at 438.

³¹ *Ibid.*

³² *Ibid.*

³³ See: FAO, National Aquaculture Sector Overview: Malaysia. Accessible at:
http://www.fao.org/fishery/countrysector/naso_malaysia/en

³⁴ See: FAO, Fishery and Aquaculture, Country Profiles: Malaysia, Country Brief, May, 2019. Accessible at: <http://www.fao.org/fishery/facp/MYS/en>

1 geographic areas or species.’³⁵ As the review goes on to note, ‘(e)ven where
2 federal lead agencies are concerned, there is a significant degree of
3 fragmentation. The management of forests, lands and shorelines, and marine
4 parks is coordinated by the Peninsular Malaysia Department of Forest, the
5 Federal Directorate of Lands and Mines, the Drainage and Irrigation Department,
6 and Marine Parks Department, while the monitoring of water quality is
7 undertaken by the Department of Environment. All these five departments are
8 within the Ministry of Natural Resources and Environment, while the Fisheries
9 Department comes under the Ministry of Agriculture.’³⁶ Specifically, ‘(t)he
10 Department of Marine Parks Malaysia, for instance, is limited to biodiversity
11 management and conservation only within the boundaries of gazetted marine
12 parks. Mangrove reserves come under the state forestry department, while all
13 other habitats outside its boundaries largely come under the state lands and
14 mines departments, which have no capacity to undertake the kind of
15 management that they need. State lands and forests come under state
16 governments, who have traditionally taken a “hands-off” approach to fisheries
17 management, always regarding as a federal responsibility. Thus, a crucial
18 stakeholder group, the (Malaysian) state governments, have never been involved
19 to any significant extent in fisheries management, notwithstanding the fact that
20 most fisheries-based ecosystems come under their jurisdiction.’³⁷

26 These Malaysian Federal-State constitutional discrepancies, as well as the legal
27 and institutional deficiencies noted above, are exacerbated in their disjointed
28 enforcement aspects.³⁸ This is despite the advent of a (relatively) new (Federal)
29 enforcement agency that was supposed to take over roles and functions that
30 were previously done by sectorally-focused agencies. According to the review,
31 ‘(t)he 2004 Malaysian Maritime Enforcement Agency (MMEA) Act was a positive
32 move towards integrated enforcement of coastal marine laws. ... Following the
33 establishment of the MMEA Act, an “administrative decision” was made that the
34 existing enforcement agencies would transfer their operational assets to the
35 agency. However, no amendment was made to any of the enabling legislation for
36 the other enforcement agencies, which thus retain a legal requirement and
37 mandate to conduct enforcement operations.’³⁹ Aside from the multiple

35 Saad, J., K. Hiew, and N. Gopinath, *Review of Malaysian Laws and Policies in Relation to the Implementation of Ecosystem Approach to Fisheries Management in Malaysia*, Honolulu, Hawaii: The USAID Coral Triangle (May, 2013) 88pp, at 46. Accessible at:

36 <http://www.coraltriangleinitiative.org/library/policy-report-review-malaysian-laws-and-policies-relation-implementation-ecosystem-approach>

37 *Ibid.*

38 *Ibid.*

39 As the (then) Prime Minister of Malaysia – Dr Mahathir Mohamed noted himself in the (2019) National Maritime Conference: ‘Currently, Malaysia has no less than 15 federal laws and orders to manage its maritime space, while the enforcement of these laws is entrusted on 31 maritime-related agencies from more than 10 ministries.’ See: Rahimi Yunus, ‘Dr M(ahathir) calls for comprehensive maritime policy’, *Malaysian Reserve*, 28 March, 2019. Accessible at: <https://themalaysianreserve.com/2019/03/28/dr-m-calls-for-comprehensive-maritime-policy/>

39 Saad *et al*, *Review of Malaysian Laws...*(2013) *ibid.*, citing Draft Final Report: Malaysia Ocean Policy, Kuala Lumpur, Malaysia (2010) & Malaysian Maritime Enforcement Agency Act 2004 (Act 633) P.U.(B)67/2005. In force: 15 February 2005, date of Royal assent: 5 June 2004; date of publication in the *Gazette*: July 2004, being an Act to establish the Malaysian Maritime Enforcement Agency to perform enforcement functions for ensuring the safety and security of

1 enforcement agency jurisdictional and operational overlaps, there is also
2 potential for still more confusion between so-called Malaysian 'fisheries waters'
3 and 'maritime waters' (already noted above) by the inclusion of a further marine
4 spatial concept within the 2004 MMEA Act, as follows: Under section 2 entitled:
5 'Interpretation', the term 'Malaysian Maritime Zone' means 'the internal waters,
6 territorial sea, *continental shelf*, exclusive economic zone and the Malaysian
7 fisheries waters and *includes the air space over the Zone.*' (*emphasis added*) The
8 ostensible inclusion within the 'Malaysian Maritime Zone' established under this
9 Act of the 'air space' over both the Malaysian 200nm EEZ and Malaysian
10 continental shelf, where it extends beyond 200nm is arguably at variance with
11 general international law, as specifically provided in the 1982 UNCLOS. As Ooi
12 notes, '(f)rom a cursory examination of that section it is evident that describing
13 the new enforcement agency as merely a 'Maritime Enforcement Agency' is a
14 slight misnomer. The jurisdiction of the MMEA obviously is not strictly limited to
15 the maritime zones, but also to the air space over each of the aforementioned
16 zones. There is little evidence that patrolling the air space appears to be at the
17 forefront of official thinking. More often than not, the numerous official
18 government press statements on the MMEA's role in the air space above the
19 maritime zone appears to have been added as an afterthought, or worse still, not
20 even mentioned.'⁴⁰

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26 Two other Malaysian fishery management policies are, respectively, the
27 (national) Fishing Zoning system, and the National Plan of Action for the
28 Management of Fishing Capacity (NPOA – Fishing Capacity).⁴¹ In relation to the
29 former policy, Shaupi *et al* have noted that: '(t)he zoning system in Malaysia
30 implemented since the 1980s, has demonstrated some forms of good
31 management of fisheries and fishing capacity. The division of the sea area into 5
32 zones, namely: A, B, C, C2 and C3 according to gear type and tonnage (See Figure
33 3, below) was initially meant to minimize conflicts among users, as well as
34 provide a fair share of resource distribution among the fishers.'⁴² Four classes of
35 boats, based on their ability to fish from a certain distance from shore, can
36 thereby fish in designated areas within Malaysia's EEZ. More recently, however,
37 it has been reported that: 'Currently, licenses for zones A, B, C and C2 are no
38 longer issued.'⁴³

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45 the Malaysian Maritime Zone, with a view to the protection of maritime and other national
46 interests in such a zone and for matters necessary thereto.

47 ⁴⁰ Irwin Ui Joo Ooi, 'The Malaysian Maritime Enforcement Agency Act 2004: Malaysia's Legal
48 Response to the Threat of Maritime Terrorism' *Australian and New Zealand Maritime Law Journal*
49 (2007) Vol.21(1) 70, text to fns.92-94, accessible at:

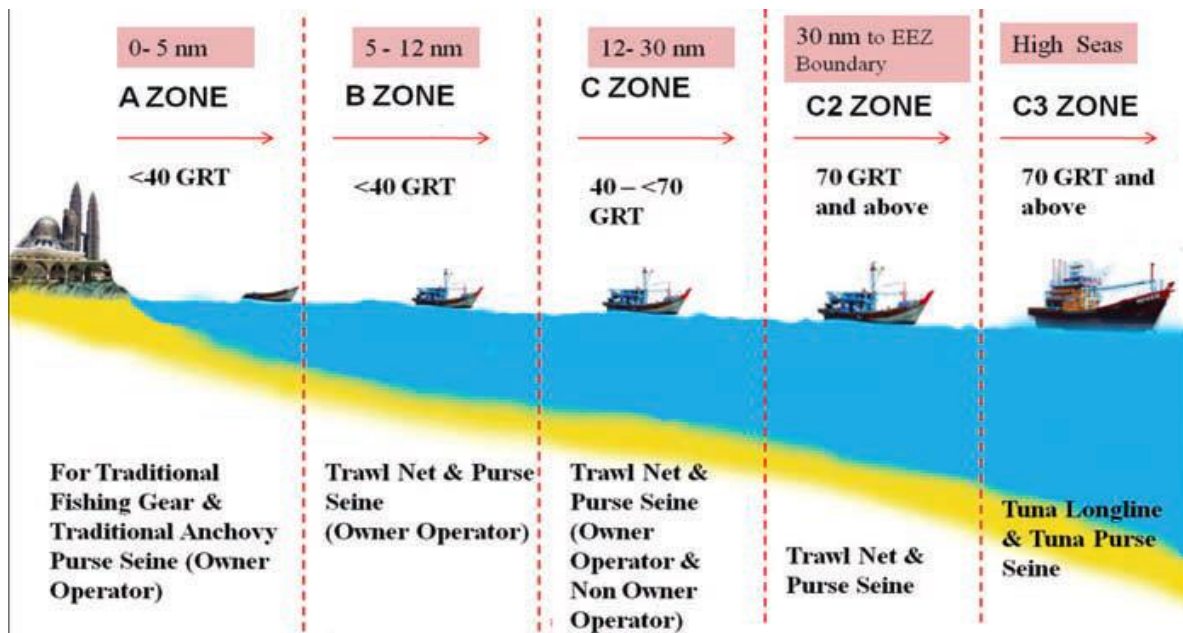
50 <http://www.austlii.edu.au/au/journals/ANZMarLawJl/2007/6.html#Heading52>

51 ⁴¹ See: Malaysian National Plan of Action for the Management of Fishing Capacity in Malaysia,
52 Department of Fisheries Malaysia, Putrajaya (2008) 20pp.

53 ⁴² Mohamad Shaupi, Abdul Khalil, Abu Talib Ahmad, Ahmad Saktian, Abdul Rahman, and Halimah
54 Mohamed, 'Putting a Plug on Increasing Fishing Capacity: NPOA for the Management of Fishing
55 Capacity in Malaysia', *Fish for the People*, Vol.9, No.2 (2011) SEAFDEC, 86-90, at 86. Accessible at:
56 [http://repository.seafdec.org/bitstream/handle/20.500.12066/866/sp9-
57 2%20fishing%20capacity.pdf?sequence=1&isAllowed=y](http://repository.seafdec.org/bitstream/handle/20.500.12066/866/sp9-2%20fishing%20capacity.pdf?sequence=1&isAllowed=y)

58 ⁴³ See: Alexandra Amling *et al*, *Stable Seas: Sulu & Celebes Sea* report, One Earth Future (19
59 February, 2019) 107pp., at p.65. Accessible from *Stable Seas* website at:
60 <https://stableseas.org/publications>

Figure 3: Malaysia's (Nationally) Designated Fishing Zones, based on Vessel Size and Gear Type



The NPOA – Fishing Capacity on the other hand, aims to manage fishing capacity in order to balance fishing efforts with available resources in a sustainable manner. According to Shaupi *et al*, ‘The development of the NPOA – Fishing Capacity is based on results of the country’s efforts to assess the fish stocks with particular attention given to cases requiring urgent measures, and is meant to address the management of fishing capacity for stocks recognized as significantly overfished.’⁴⁴ The NPOA – Fishing Capacity therefore focuses on the management of fishing capacity in marine capture fisheries through the implementation of a range of policies and technical measures aimed at ensuring the desired balance between fishing inputs and outputs in terms of production.⁴⁵

More recently, it has been reported that the National Plan of Action for the Management of Fishing Capacity in Malaysia (NPOA Fishing Capacity, Plan 2) was developed based on the achievement of NPOA Fishing Capacity, Plan 1. This revised NPOA Fishing Capacity, Plan 2 comprises three strategies: (1) review and implementation of effective conservation and management measures, (2) strengthening Monitoring, Control and Surveillance (MCS) capacity and capability, and (3) promotion of public awareness and education program. The Department of Fisheries Malaysia is in the process of reviewing the achievements of Plan 2 in order to prepare a (further) new plan.⁴⁶

⁴⁴ Shaupi (2011) *ibid*.

⁴⁵ *Ibid*, citing Rosidi Ali, Fishing capacity and responsible fishing: Towards the development of the 2011 Resolution and Plan of Action for Sustainable Fisheries in the ASEAN Region. Paper presented during the ASEANSEAFDEC Regional Technical Consultation on Adaptation to a Changing Environment, 1-4 November 2010, Bangkok, Thailand.

⁴⁶ See: Rathi Sai Muniandy, (Malaysia) Country Update on Management of Fishing Capacity and Combating IUU Fishing (NPOA-Capacity & NPOA-IUU) and Law and Legislation, in SEAFDEC, Report of the 8th Meeting of the Gulf of Thailand Sub-Region, Chonburi Province, Thailand, 4-5 September 2019, 63pp. At para.29, p.6.

1 A further amendment (in 2019) to the 1985 Malaysian Fisheries Act is designed
2 to emphasize Malaysia's commitment to severely de-incentivize illegal,
3 unreported and unregulated (IUU) fishing in both within the Malaysian 200-nm
4 EEZ limits, and in the high seas beyond, for Malaysian-flagged fishing vessels.⁴⁷
5 Specifically, *Clause 9* of the Fisheries (Amendment) Act, 2019 seeks to amend
6 section 25 of the 1985 Fisheries Act (Act 317). *Sub-clause 9(a)* seeks to amend
7 paragraph 25(a) of Fisheries Act 317 to increase the general penalty for offences
8 under Act 317 in the case of foreign fishing vessel or foreign national from one
9 million ringgit to six million ringgit (approx. USD\$1.5 million) for owner or
10 master and from one hundred thousand ringgit to six hundred thousand ringgit
11 (USD\$150,000) for every member of the crew. *Sub-clause 9(b)* seeks to introduce
12 a new paragraph 25(aa) into Act 317 to provide a fine not exceeding four million
13 ringgit (USD\$1 million) as a general penalty for offences under Act 317 in the
14 case of any local fishing vessel on the high seas.⁴⁸
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20 Finally, as the 2018 Malaysian report to the Indian Ocean Tuna Commission
21 (IOTC) observes, the government has taken further measures to reduce the
22 impact of fishing activities on the marine ecosystem by promoting and
23 encouraging the use of 'eco-friendly fishing gears', as well as introducing various
24 fishing regulations, such as prohibiting any commercial fishing gears from
25 fishing within one (1) nautical mile (nm) (Conservation Zone) from the coastline
26 as these areas are reserved for aquaculture activities, cockle culture and fisheries
27 communities activities only.⁴⁹ (This in addition to the zoning of fishing areas,
28 noted above).
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32 A further requirement for all vessels operating beyond 12 nm from shore in
33 Malaysian waters is that of Vessel Operation Reports (VORs),⁵⁰ in which data
34 from fishing activities (including compulsory recording of landings) is utilized to
35 assist in the management of fisheries resources. VORs are now required for the
36 annual renewal of fishing vessel licenses. The VOR form requires detailed
37 information on fishing areas, times/dates, catches by species, details of by-
38 catches if any, names of ports of landings, or details of trans-shipments to be
39 submitted to the nearest Department of Fisheries office. Failure to do so, will
40 cause the license of the vessel to be revoked or suspended as provided under the
41 Fisheries Act 1985.⁵¹
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46 The 2018 Malaysian report to the IOTC also noted that as the need for
47 conservation of national marine resources increases, the need for more and
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50 ⁴⁷ *Ibid.*, at para.30, p.6.

51 ⁴⁸ This Bill was passed on 9 July, 2019 by the Lower House (Dewan Rakyat) of the Malaysian
52 Parliament (D.R.16/2019) but has not entered into force yet. Accessible at:
53 <https://www.parlimen.gov.my/bills-dewan-rakyat.html?uweb=dr&lang=en#>

54 ⁴⁹ Malaysia National Report to the Scientific Committee of the IOTC, 2018, by Samsudin, B,
55 Sallehudin, J, Tengku. Balkis, T.S., and Nor Azlin, M, Department of Fisheries, Malaysia
56 (November, 2018) IOTC-2018-SC21-NR15, at 12.

57 ⁵⁰ There seems to be a discrepancy here with the 2019 national report (see below), which states
58 that the VOR requirement only applies to 'all vessels operating beyond 30 (i.e., *not* 12) nm from
59 the shore (deep-sea vessels)', at 17.

60 ⁵¹ 2018 Malaysian report to IOTC, *ibid.*, at 18.
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1 better quality data on how these resources are utilized also increases. One of the
2 most useful types of data is catch per unit effort. To meet these needs, in
3 September 2017, the Malaysian Department of Fisheries began a vessel logbook
4 programme, initially for pelagic long-line fisheries. Under this programme,
5 fishermen are required to report the numbers of each species caught, the
6 numbers of animals retained or discarded alive or discarded dead (long-line gear
7 is non-selective and unwanted or prohibited species such as, billfishes, sea
8 turtles, etc., must be returned to the water), the location of the set, the types and
9 size of gear, and the duration of the set.⁵² In its 2019 national submission, the
10 Malaysian government reported that it has updated the national logbook to
11 include all the species requested in (IOTC) Resolution 15/01, and monitor tuna
12 landing(s) and inspection at port by (the) Port Inspector.⁵³
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16 The following sections will discuss transboundary fisheries management issues
17 involving Malaysia in each of the four areas of regional and sub-regional marine
18 fisheries space previously identified, namely, 1) the South China Sea; 2) Straits of
19 Malacca; 3) the southern Andaman Sea, corresponding to the northern part of
20 the Malacca Straits; and 4) the Sulu-Celebes Sea(s) area.
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23 **1) South China Sea**

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26 The South China Sea looms large in the public mind as a continuing site of Great
27 Power, as well as regional, rivalry over international shipping lanes and offshore
28 hydrocarbon potential. However, for local populations, especially those living
29 along the coastlines of the littoral States of this semi-enclosed, regional sea, it is
30 in fact their access to fisheries that forms their greatest source of interest and
31 concern. According to Houdre, '(t)he South China Sea is home to one of the most
32 biodiverse ecosystems on earth. It includes around 600 species of coral reef,
33 3000 species of fish, and 1500 species of sponge. Some of these species are
34 endangered.'⁵⁴ Moreover, she notes that: 'These species are important not only
35 in their own right, but also because they interact with each other and their
36 physical environment in order to survive.'⁵⁵ Focussing on corals, for example,
37 Goodwin observes that these support marine species, protect coasts, and serve
38 as the pillars of fisheries.⁵⁶ In fact, according to Pala, in 2016, the South China Sea
39 produced 16.6 million tons of catch, supported by corals.⁵⁷
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46 ⁵² *Ibid.*

47 ⁵³ See: Malaysia National Report to the Scientific Committee of the Indian Ocean Tuna
48 Commission, 2019, by Sallehudin, J., Effarina M.F.A., Noor Hanis A.H., Tengku. Balkis, T.S., and Nor
49 Azlin, M., Department of Fisheries, Malaysia (October, 2019) IOTC-2019-SC22-NR15, at 17.

50 ⁵⁴ Chloe Houdre, 'Environmental Ramifications of the South China Sea Conflict: Vying for Regional
51 Dominance at the Environment's Expense', *Georgetown Environmental Law Review* (2018) citing
52 several sources. Accessible at:

53 https://www.law.georgetown.edu/environmental-law-review/blog/environmental-ramifications-of-the-south-china-sea-conflict-vying-for-regional-dominance-at-the-environments-expense/#_ftnref9

54 ⁵⁵ *Ibid.*, citing Edward J. Goodwin, *International Environmental Law and the Conservation of Coral Reefs* (2011) at 10.

55 ⁵⁶ Goodwin (2011) *ibid.*, at 12.

56 ⁵⁷ Christopher Pala, Official Statistics Understate Global Fish Catch, New Estimate Concludes, *Science* (Jan. 19, 2016) Accessible at:

1 As a recent long range report prepared for the US National Intelligence Council
2 (NIC) by the Stimson Center observes, 'Fisheries provide an important dietary
3 staple—fish protein—to many of the 2.49 billion people of the Indian Ocean (IO)
4 littoral and *some 1.87 billion people living in eight Southeastern Asian countries,*
5 *Taiwan, and three Chinese provinces around the South China Sea (SCS).* Fisheries
6 also constitute a key economic resource for many coastal communities.⁵⁸
7 (*emphasis added*) Specifically, the report goes on to state: 'The countries
8 bordering the South China Sea—Brunei, Cambodia, China, Indonesia, Malaysia,
9 the Philippines, Thailand, and Vietnam—rank among the top fish-producing and
10 (fish)-consuming countries in the world in terms of both marine catch and
11 aquaculture. Many people in these countries depend upon the fishing industry
12 for both food security and income,⁵⁹ before concluding with the following
13 forecast: 'Looking out to 2020 and beyond to 2040, the dual challenges of rising
14 demand from growing populations and economies, colliding with increasing
15 pressures on supply—stemming from overexploitation, pollution, habitat
16 destruction, and climate change—will impose serious pressures on fisheries.'⁶⁰
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22 In terms of the relationship between fisheries resources and regional fishing
23 effort, the Expert Working Group on the South China Sea convened by the Center
24 for Strategic and International Security (CSIS) has noted that: 'The South China
25 Sea is one of the world's top five most productive fishing zones, accounting for
26 about 12 percent of global fish catch in 2015. More than half of the fishing
27 vessels in the world operate in these waters, employing around 3.7 million
28 people, and likely many more engaged in illegal, unregulated, and unreported
29 (IUU) fishing. But this vital marine ecosystem is seriously threatened by
30 overfishing encouraged by government subsidies, harmful fishing practices, and,
31 in recent years, large-scale clam harvesting and dredging for island construction.
32 Total fish stocks in the South China Sea have been depleted by 70–95 percent
33 since the 1950s, and catch rates have declined by 66–75 percent over the last 20
34 years. ... The entire South China Sea fishery, which officially employs around 3.7
35 million people and helps feed hundreds of millions, is now in danger of collapse
36 unless claimants act urgently to arrest the decline.'⁶¹
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42 The Working Group's proposal to avert this collapse initially recognises that: 'An
43 effective system to manage South China Seas fisheries and the environment
44 cannot be based primarily on the overlapping territorial and maritime claims, to
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49 [http://www.sciencemag.org/news/2016/01/official-statistics-understate-global-fish-catch-](http://www.sciencemag.org/news/2016/01/official-statistics-understate-global-fish-catch-new-estimate-concludes)
50 [new-estimate-concludes](http://www.sciencemag.org/news/2016/01/official-statistics-understate-global-fish-catch-new-estimate-concludes)

51 ⁵⁸ See: Executive Summary, *The Future of Indian Ocean and South China Sea Fisheries: Implications*
52 *for the United States*, National Intelligence Council Report, NICR 2013-38, 30 July 2013, at i.
53 Accessible at:

54 <https://www.dni.gov/files/documents/nic/NICR%202013-38%20Fisheries%20Report%20FINAL.pdf>

55 ⁵⁹ *Ibid.*

56 ⁶⁰ *Ibid.* at ii.

57 ⁶¹ CSIS Expert Working Group on the South China Sea, *A Blueprint for Fisheries Management and*
58 *Environmental Cooperation in the South China Sea*, September 13, 2017. Accessible at:
59 [https://www.csis.org/analysis/blueprint-fisheries-management-environmental-cooperation-](https://www.csis.org/analysis/blueprint-fisheries-management-environmental-cooperation-south-china-sea)
60 [south-china-sea](https://www.csis.org/analysis/blueprint-fisheries-management-environmental-cooperation-south-china-sea)
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1 which the fish pay no attention.⁶² Instead, the Working Group postulates that
2 such an integrated fisheries conservation and marine environmental
3 management framework 'must be built around the entire marine ecosystem,
4 particularly the reef systems, on which much marine life depends. With political
5 will, it is entirely possible for nations bordering the South China Sea to
6 cooperatively protect these ecosystems and manage fish stocks without
7 prejudice to their overlapping territorial and maritime claims.'⁶³ Unfortunately,
8 there is still no sign of the above levels of regional co-operation for this semi-
9 enclosed sea, at least in the form of any kind of international *legal* framework
10 towards these ends.
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13 According to US NIC report (cited above), 'Southeast Asian countries as a whole
14 participate in a number of regional bodies and agreements, notably the Asia-
15 Pacific Fishery Commission (APFIC), the Southeast Asian Fisheries Development
16 Center (SEAFDEC), and the (ASEAN) Regional Plan of Action to Promote
17 Responsible Fishing Practices (RPOA). These organizations play important roles
18 in promoting and improving fishery management in the region, though many of
19 these organizations primarily discuss voluntary provisions, or are limited to
20 conducting research, gathering information, and/or making policy
21 recommendations. Most Southeast Asian fishery agreements contain the type of
22 nonbinding language that typically characterizes regional pacts, but effective co-
23 management and policing mechanisms between most countries bordering the
24 South China Sea are still lacking. Further, many of these regional bodies or
25 agreements lack the participation of one critical country: China. One notable
26 exception is the Gulf of Tonkin fishery agreement between China and Vietnam,
27 which has the potential for expansion to cover broader maritime areas.'⁶⁴ On the
28 other hand, the NICR report goes on to state that: 'Although all of the South China
29 Sea countries realize the threat posed to their economies and food security from
30 the current lack of cooperation to ensure sustainable fisheries, the maritime
31 disputes will long present major obstacles to any regional approach. There are
32 no regional organizations or South China Sea-wide initiatives for cooperating to
33 sustainably manage fisheries except nongovernmental organizations for training
34 or professional bodies for networking and personal cooperation.'⁶⁵
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43 **Asia-Pacific Fishery Commission (APFIC)**

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45 Unlike other regional fisheries arrangements that Malaysia participates in, the
46 Asia-Pacific Fishery Commission (APFIC) founded in 1948, is underpinned by a
47 legally-binding Agreement to promote the full and proper use of living aquatic
48 resources in the region from the Indian Ocean to the Pacific Ocean.⁶⁶ In this
49 regard, the Commission assists member countries to achieve their objectives by
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54 ⁶² *Ibid.*

55 ⁶³ *Ibid.*

56 ⁶⁴ See: *The Future of Indian Ocean and South China Sea Fisheries: Implications for the United States*
57 National Intelligence Council (NIC) Report, NICR 2013-38, 30 July 2013, at 19.

58 ⁶⁵ *Ibid.*, at 28.

59 ⁶⁶ Adopted in February, 1948 & in force on 9 November, 1948. Text of the APFIC Agreement is
60 accessible at: <http://www.fao.org/apfic/background/apfic-agreement/en/>
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1 helping with the development and management of marine fishing activities, and
2 aquaculture farming operations, as well as fish product processing and
3 marketing. APFIC works to improve understanding, awareness and cooperation
4 concerning fisheries issues in the Asia-Pacific region. Twenty-one countries are
5 now members of the Commission, which maintains its Secretariat at the FAO
6 Regional Office for Asia and the Pacific in Bangkok, Thailand. Member countries
7 are Australia, Bangladesh, Cambodia, China, France, India, Indonesia, Japan,
8 Malaysia, Myanmar, Nepal, New Zealand, Pakistan, Philippines, Republic of
9 Korea, Sri Lanka, Timor-Leste, Thailand, United Kingdom, United States of
10 America and Viet Nam.⁶⁷

13 The Commission addresses a number of issues that pose threats to the health
14 and future of fisheries in the Asia-Pacific region. Notably, the Commission's
15 mandate for action appears to encompass a broader notion of threats than those
16 related to IUU fishing activities alone. Thus, although overfishing and
17 unsustainable production practices are identified, so is weak management of
18 aquaculture development and intensification. On top of these challenges, the
19 Commission has highlighted climate variability affecting freshwater and marine
20 ecosystems with impacts already apparent in the form of increased flooding,
21 coastal storms, drought and temperature rise.⁶⁸ Specifically, the APFIC's work is
22 directed towards the following aims: promoting an ecosystem approach;
23 sustainable intensification of aquaculture; policy development and capacity
24 building; analysis and consensus building on critical issues.

29 Focussing on the first two goals related to marine and aquatic/freshwater
30 fisheries, APFIC's work begins from the recognition that fisheries and other
31 marine resources do not exist in isolation so that the best way to sustain and
32 conserve them as a whole is to promote an ecosystem approach to fishery
33 management. To this end, the Commission states that it 'is working with partners
34 to develop regional training courses in the ecosystem approach so that those
35 responsible for managing fisheries and marine resources may do so more
36 holistically, reduce user group conflicts, help unlock financial resources, work
37 cooperatively with other stakeholders and better resolve fisheries issues and
38 challenges.'⁶⁹ Moreover, 'the Commission recognizes the opportunities presented
39 by aquaculture in the region, but also the challenges from the increasing
40 intensification of aquaculture production.'⁷⁰ Thus, a core part of the biennial
41 programme for the APFIC is working on advisory material, regional consensus
42 building and the development of management tools tailored to meet the needs of
43 the region.⁷¹

49 **ASEAN Regional Plan of Action (RPOA)**

51 According to the US NIC report (referred to above) on *inter alia* South China Sea
52 fisheries, regional countries are slowly recognizing threats to fisheries from

56 ⁶⁷ Accessible at: <http://www.fao.org/asiapacific/apfic/en/>

57 ⁶⁸ *Ibid.*

58 ⁶⁹ *Ibid.*

59 ⁷⁰ *Ibid.*

60 ⁷¹ *Ibid.*

1 climate change and trying to bring illegal fishing and fishing methods under
2 cooperative and regulatory regimes. Within this context, the 'Regional Plan of
3 Action (RPOA) to Promote Responsible Fishing Practices (including combating
4 illegal, unreported, and unregulated fishing) in the Region' was adopted by
5 fisheries ministers from six ASEAN countries, namely, Cambodia, Indonesia,
6 Malaysia, Philippines, Singapore, Thailand, and Viet Nam, as well as Australia,
7 Papua New Guinea, and Timor-Leste at a meeting in Bali, Indonesia, on 4 May,
8 2007. Notably, however, China is not a participant in RPOA.⁷² Four regional
9 fisheries organisations provide technical advice and assistance, i.e., the
10 FAO/Asia-Pacific Fishery Commission (APFIC), Southeast Asian Fisheries
11 Development Centre (SEAFDEC), InfoFish and Worldfish Center.
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15 The objectives of RPOA(-IUU) are to enhance and strengthen the overall level of
16 fisheries management in the region, in order to sustain fisheries resources and
17 the marine environment, as well as optimize the benefit of adopting responsible
18 fishing practices.⁷³ Under this Plan, these countries agreed to combat illegal,
19 unreported and unregulated (IUU) fishing in three sea areas, the first two of
20 which fall at least partly within Malaysian EEZ and continental shelf jurisdiction,
21 namely, 1) the South China Sea (including the Gulf of Thailand); 2) the Southern-
22 Eastern South China Sea and Sulu-Sulawesi Seas; and 3) the Arafura-Timor Seas.
23 These actions cover conservation of fisheries resources and their environment,
24 managing fishing capacity, and combating IUU fishing, *inter alia*, by seeking to
25 identify and deny port access to boats involved in such IUU fishing.⁷⁴
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30 The Malaysian national report at the most recent RPOA Co-ordination Committee
31 Meeting highlighted the following points on current Malaysia fisheries
32 management issues, including: amendment of Fisheries Act imposing stronger
33 penalties; collaboration with the South East Asian Fisheries Development Center
34 (SEAFDEC, see below) to share scientific information of certain small pelagic and
35 neritic tuna stocks with a view to improve management of shared stocks; as well
36 as conducting gap analysis on legal framework and capacity need to implement
37 the FAO global record of (fishing) vessels initiative,⁷⁵ and SEAFDEC Regional
38 Fishing Vessels Record (RFVR) requirements.⁷⁶ Malaysia is also obligating all the
39 fishing vessels to install Monitoring Tracking Unit (MTU) and Automatic
40 Identification System (AIS) in order to monitor fishing vessels, as well as
41 implementing Radio Frequency Identification (RFID) and Quick Response (QR)
42 code(s) for her fishing license system.⁷⁷
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49 ⁷² United States NIC Report (2013) *ibid.*, at 28.

50 ⁷³ Accessible at: <http://www.rpoaiuu.org>

51 ⁷⁴ See: NIC report, *ibid.*

52 ⁷⁵ Further information accessible at: <http://www.fao.org/global-record/en/>

53 ⁷⁶ For a report on this SEAFDEC-initiated programme for the Development of RFVR and RFVR
54 Database for (Fishing) Vessels 24m in Length and Over, see; Kongpathai Saraphaivanich, Yanida
55 Suthipol, Namfon Imsamrarn, Bundit Chokesanguan, and Somboon Siriraksophon, 'Regional
56 Fishing Vessels Record: A Management Tool for Combating IUU Fishing in Southeast Asia' *Fish for*
57 *the People*, Vol.14 No. 2: 2016 (Special Issue) 12-17.

58 ⁷⁷ Summary Report of 12th Coordination Committee Meeting on the Regional Plan of Action
59 (RPOA) Siem Reap, Cambodia, on 26-28 November 2019, at 4-5. Accessible at:
60 <http://www.rpoaiuu.org/wp-content/uploads/2019/12/12th-CCM-Report.pdf>
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South East Asian Fisheries Development Center (SEAFDEC)

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Within this context, the South East Asian Fisheries Development Center (SEAFDEC)⁷⁸ represents the closest regional fisheries management institution/arrangement to that of a regional fisheries management organization (RFMO) in the South China Sea region. However, as its title suggests, SEAFDEC is not a formally constituted, inter-governmental fisheries regulatory body like that found elsewhere. Instead, SEAFDEC fulfils a more informal, supportive role for regional fisheries co-ordination rather than management, let alone governance or regulation. SEAFDEC's mandate and objectives are as follows: '... (SEAFDEC) is mandated to develop and manage the fisheries potential of the region by rational utilization of the resources for providing food security and safety to the people and alleviating poverty through transfer of new technologies, research and information dissemination activities. SEAFDEC's strategic objectives are (i) to promote rational and sustainable use of fisheries resources in the region; (ii) to enhance the capability of fisheries sector to address emerging international issues and for greater access to international trade; (iii) to alleviate poverty among the fisheries communities in Southeast Asia; and (iv) to enhance the contribution of fisheries to food security and livelihood in the region.'⁷⁹ This informal role of SEAFDEC can also be surmised from the fact that 'SEAFDEC does not have a defined geographical area of competence, as SEAFDEC is technical organization with no management authority.'⁸⁰ SEAFDEC Members comprise the following countries: Brunei Darussalam, Cambodia, Indonesia, Japan, Lao People's Dem. Rep., Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam.

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Despite its arguably informal organizational setting, SEAFDEC's role is historically significant and this fact alone renders a transcendent authority to its work, as one of the main providers of relevant fisheries science data that informs sound conservation and management decisions. SEAFDEC's role in this regard is enhanced through endorsements by the pre-eminent regional organization, namely, ASEAN. For example, on 17 June 2011, the fisheries ministers of ASEAN-SEAFDEC members adopted a Resolution on Sustainable Fisheries for Food Security for the ASEAN Region in Bangkok, Thailand on the occasion of the ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security Towards 2020: Fish for the People 2020 - Adaptation to a Changing Environment,⁸¹ endorsing the eponymous *Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020*,⁸² adopted by the ASEAN-SEAFDEC Senior Officials as a guideline for formulating and implementing programs, projects, and activities through appropriate ASEAN-SEAFDEC mechanisms. This

⁷⁸ UN FAO, Regional Fishery Bodies, Summary Descriptions, Southeast Asian Fisheries Development Center (SEAFDEC). Accessible at:

[file:///C:/Users/nls3ongd/Downloads/FAO%20Fisheries%20&%20Aquaculture%20-%20Regional%20Fishery%20Bodies%20Summary%20Descriptions%20-%20Southeast%20Asian%20Fisheries%20Development%20Center%20\(SEAFDEC\).pdf](file:///C:/Users/nls3ongd/Downloads/FAO%20Fisheries%20&%20Aquaculture%20-%20Regional%20Fishery%20Bodies%20Summary%20Descriptions%20-%20Southeast%20Asian%20Fisheries%20Development%20Center%20(SEAFDEC).pdf)

⁷⁹ *Ibid.*

⁸⁰ *Ibid.*

⁸¹ Accessible from ASEAN-SEAFDEC Strategic Partnership website, 'Documents' page, at: <http://asspfisheries.net/documents/>

⁸² *Ibid.*, at para. 22 of 2011 Resolution.

2011 Resolution provides, *inter alia*, for the following relevant actions on regional transboundary fisheries governance and management issues:

(Paragraph 4.) Strengthen fisheries governance by evaluating current constraints to ensure comparability and compatibility between the required practices and operation of fisheries in the ASEAN Member Countries;

(5.) Further develop regional initiatives to promote a responsible fisheries management mechanism, taking into account the specific social, economic, cultural, ecological and institutional contexts and diversity of ASEAN and ASEAN fisheries in the spirit of the development of the ASEAN Economic Community and the ASEAN Socio-Cultural Community;

(6.) Implement effective management of fisheries through an ecosystem approach to fisheries that integrates habitat and fishery resource management aimed at increasing the social and economic benefits to all stakeholders, especially through delegating selected management functions to the local level and promoting co-management as a partnership between government and relevant stakeholders;

(7.) Promote better management of fishing capacity and use of responsible fishing technologies and practices, recognising the movement towards replacing the “open access” to fisheries resources with “limited access” through rights-based fisheries, and at the same time, secure the rights and well-being of inland and coastal fisheries communities;

(8.) Foster cooperation among ASEAN Member Countries and with international and regional organisations in combating IUU fishing;

(9.) Enhance resilience of fisheries communities to anticipate and adapt to changes in environmental conditions of inland and coastal waters, including those caused by climate change, which could adversely affect fisheries and aquaculture of fisheries communities;

(10.) Strengthen knowledge/science-based development and management of fisheries through enhancing the national capacity in the collection and sharing of fisheries data and information; ...’

Among the different types of fish species that give rise to transboundary fisheries management issues for Malaysia and her neighbouring States, varieties of *tuna* currently form their main catch, and therefore also their main source of future concern. As the SEAFDEC Secretariat notes in a recent Statement, ‘(t)unas have been very important resources for several countries in Southeast Asia in view of its contribution to economies and improving livelihoods of fishers in the region. From the regional perspective, it was commonly agreed that tuna fisheries in the Southeast Asian waters should be placed under the guidance and management of respective tuna RFMOs. However, since there is no clear data and information on stock structure of tunas distributed in the Southeast Asian region, development of appropriate tuna management at the national and sub-regional levels could be difficult. The lack of data and information in this region would also hamper the efforts of concerned RFMOs in carrying out effective regional stock assessment.’⁸³

⁸³ See: SEAFDEC Secretariat, Statement by Dr. Chumnarn Pongsri & Annex 1: ‘Promoting Sustainable Tuna Fisheries Management in Southeast Asian Waters through Regional Cooperation’, to the Western and Central Pacific Fisheries Commission, SCIENTIFIC COMMITTEE

1 Building on the need for collective action on tuna species, an ASEAN-SEAFDEC
2 Regional Plan of Action on Sustainable Utilization of Neritic Tunas in the ASEAN
3 Region was adopted in 2015.⁸⁴ This Regional Plan of Action (RPOA-Neritic
4 Tunas) provides for the following Objectives:

5 Objective I: Determining available data and information, improving data
6 collection and developing key indicators

7 Objective II: Improving sustainable fisheries management;

8 Objective III: Improving sustainable interaction between 9 fisheries and marine
9 ecosystem

10 Objective IV: Improving compliance to rules and regulations 9 and access to
11 markets

12 Objective V: Addressing social issues; and

13 Objective VI: Enhancing regional cooperation

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18 Of these 6 Objectives, the last one: 'Objective VI: Enhancing regional cooperation'
19 is most relevant to the overarching theme for this paper, namely, transboundary
20 fisheries management and is elaborated, *inter alia*, as follows:

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23 Issue 6.1: Lack of Sub-regional action plans for neritic tuna fisheries

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26 Action Plan: Enhance/Develop Sub-regional Action Plans for Neritic Tuna
27 Fisheries

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- 30 • Reviewing the existing action plans in sub-regions such as Sulu-Sulawesi Seas,
31 Gulf of Thailand, South China Sea, and Andaman Sea
- 32 • Establishment of cooperation on R&D to support sub-regional management of
33 neritic tuna fisheries
- 34 • Exchanging of information among ASEAN Member States on legal framework,
35 policies & management, trade rules & regulations at sub- regional and regional
36 levels on neritic tuna fisheries
- 37 • Encouraging the participation of ASEAN Member States in sub-regional fora and
38 consultations organized by regional fishery management organizations such as
39 IOTC, if applicable and other regional fora.
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43 Issue 6.2: Insufficient information on status and trends of neritic tunas at sub-
44 regional level

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47 Action Plan: Assessment of the Status and Trends of Neritic Tunas at Sub-
48 Regional Level

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- 51 • Establishment of the SEAFDEC scientific working group on neritic tunas for
52 regional stock assessment and providing scientific advice for policy
53 considerations on neritic tunas management
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57 NINTH REGULAR SESSION (SC9-WCPFC) held from 6-14 August 2013, at Pohnpei, Federated
58 States of Micronesia. WCPFC-SC9-2013/ GN-IP-05. Accessible at:

59 [file:///Users/davidmong/Downloads/WCPFC-SC9-2013-GN-IP-05-\[SEAFDEC-Statement\].pdf](file:///Users/davidmong/Downloads/WCPFC-SC9-2013-GN-IP-05-[SEAFDEC-Statement].pdf)

60 ⁸⁴ Accessible from ASEAN-SEAFDEC Strategic Partnership website, 'Documents' page, at:
61 <http://asspfisheries.net/documents/>

- Conduct of regular meetings of SEAFDEC scientific working group at a sub-regional and regional levels
- Conduct of regional tagging program on neritic tunas.⁸⁵

In 2019, the shared experiences, best practices, and lessons learned from the implementation of a SEAFDEC-Sweden Project, as well as the recommendations from the participants of an End of Project meeting, were distilled into a set of Key Messages that serve as guidelines to SEAFDEC, ASEAN, Governments of the ASEAN Members States (AMSs) and the Partner organizations for building on the results and sustaining the initiatives of the Project.⁸⁶ These Key Messages are *inter alia* as follows:

On Transboundary Species:

- Improve the capacity of the countries in data collection and analysis of the stocks of transboundary species, by mobilizing the available expertise from other national institutions in the respective countries;
- Continue regional cooperation for data collection and stock assessment of transboundary species in collaboration with regional organizations, including in the implementation of the RPOA-Neritic Tunas and its SWG, the Regional Action Plan for Indo-Pacific Mackerel in the Gulf of Thailand;
- Transform the scientific findings into materials that could be easily understood by policy makers and fisheries managers, as well as fishers;
- Seek support from organizations, e.g. from SEAFDEC, as well as from potential donor agencies, e.g. FAO, USAID, Japanese Trust Fund (JTF), to continue the activities.

On Sub-regional Cooperation for Combating IUU Fishing:

- The most important prerequisites for combating IUU fishing include consistent and strong political will, and amendment of the country's legal frameworks to comply with the requirements of relevant international instruments. In preventing the entry of IUU fish into the supply chain, there is a need to combine the measures that address different points of the supply chain where IUU products can enter. However, combating IUU fishing should also take into consideration the circumstances of the countries, e.g. the need for securing rights of small-scale fishers as well as the livelihood/welfare of the communities.
- With the support from the SEAFDEC-Sweden Project, comparative studies on laws and regulations were conducted by SEAFDEC for some neighboring areas of some countries in the region. Results of such studies have been beneficial for these countries in-terms of enabling fisheries officers at the local level to obtain better understanding of other country's laws and regulations; helping fishers to avoid violating other countries' regulations; serving as reference for collaborative projects in transboundary areas; and identifying the gaps and what needs to be done to ratify relevant international instruments.
- Amendment of the countries' fisheries laws and regulations could be one of the

⁸⁵ RPOA-Neritic Tunas, *ibid.*, at 12-13.

⁸⁶ SEAFDEC, Proceedings of the End of Project Meeting: Fisheries and Habitat Management, Climate Change and Social Well-Being in Southeast Asia (2013-2019), 30-31 October 2019, Bangkok, Thailand, SEAFDEC (2019) 45pp. Accessible at: <http://repository.seafdec.org/handle/20.500.12066/5738>

1 important indicators that demonstrate their alignment with emerging initiatives
2 and international requirements, e.g. the EAFM and Co-management concepts,
3 Port State Measures Agreement (PSMA), International Labour Organization (ILO)
4 Convention, etc. However, for some countries high-level policy decisions are also
5 important, e.g. for combating IUU fishing, control of fishing efforts, moratorium
6 on destructive fishing gears, transshipment at sea or in other country's port, etc.
7 without necessarily amending their existing laws and regulations.

8 • To strengthen Monitoring, Control and Surveillance (MCS), establishment of
9 MCS networks has been initiated with the support of the SEAFDEC-Sweden
10 Project. Through this initiative, mechanisms for collaboration and information
11 sharing among concerned agencies within and among the countries in the region
12 have been initiated. Nevertheless, it is necessary that regional MCS mechanism
13 should also be promoted by relevant regional organizations, particularly for the
14 different sub-regional areas of the region.

15 • The Port State Measures (PSM) is considered as very effective tool for
16 combating IUU fishing by preventing the entry of IUU fish, particularly from
17 foreign vessels into the country. However, there is still a need to ensure that the
18 country's legal frameworks are compliant with the PSM requirements, including
19 capacity building of relevant authorities in the implementation of the PSM.

20 • The Regional Plan of Action for Management of Fishing Capacity was developed
21 with support from the SEAFDEC Sweden Project upon the request of Malaysia
22 during the ASWGF Meeting. While some countries could already implement the
23 management of fishing capacity, but to support the Southeast Asian region in the
24 implementation of the RPOA-Capacity as a whole, there is a need for a regional
25 platform for the countries to enhance their understanding and improve their
26 existing laws and regulations through sharing of experiences among countries.

27 • The ASEAN Catch Documentation Scheme (ACDS) is also one of the most
28 effective tools for combating IUU fishing. Implementation of ACDS not only
29 enables the traceability of fish and fishery products, but also enhances
30 international trade of fish and fishery products. Nevertheless, successful
31 implementation of the ACDS is long process as it also requires several
32 management systems to be put in place in the country, e.g. port-in port-out, catch
33 report at sea, report at landing sites, report by processors. In order to overcome
34 some difficulties faced in ACDS operations, e.g. limited wifi signal at sea,
35 SEAFDEC would continue to promote the use of off-line technologies.
36 Furthermore, besides implementing the ACDS in more countries in the region,
37 the expansion of ACDS to also cover traceability of products from aquaculture
38 and hatcheries intended for export should also be considered.

48 *On Sub-Regional Platforms:*

49 Focusing on the Gulf of Thailand, Andaman Sea, Sulu-Sulawesi Seas and Mekong
50 Sub-Regions, the priority issues that has been addressed through sub-regional
51 cooperation focused on:

52 - Combating IUU fishing, e.g. sharing/exchanging of information on laws,
53 regulations and practices, and enhancing coordination/networking of initiatives
54 among countries including MCS network;

55 - Management of transboundary species, e.g. on data collection, sharing and
56 analysis, and development of management measures at sub-regional level;

57 Moving forward to the implementation of the sub-regional approach in the
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future, the following aspects should be considered:

- Support for the formulation and implementation of projects using sub-regional approach, such as the BOBLME and Gulf of Thailand (GOTFish) in collaboration with relevant organizations;
- Formalization of mechanisms for the different sub-regions in the areas of planning, implementation, and in monitoring/evaluation of activities addressing their priority issues;
- Support for the development and implementation of action plans among countries to address issues that need to be addressed at sub-regional level, e.g. combating IUU fishing, management of transboundary species, habitat and species conservation;
- Capacity building for countries to support activities under the sub-regional platform.⁸⁷

As well as the SEAFDEC–ASEAN programmes discussed above, Malaysia also participates in SEAFDEC programmes on *aquaculture*, which include, *inter alia*, the promotion of mangrove-friendly aquaculture. In relation to this set of issues, the 2011 ASEAN-SEAFDEC Resolution (above) provides, *inter alia*, '(Paragraph 15.) Enhance the awareness that aquaculture makes to food security and sustainable livelihoods to deliver a responsible increase in aquaculture production that promotes aquaculture for rural development as means of rational use of land and water resources; (16.) Promote cooperation among Member Countries and with international and regional organizations in encouraging responsible aquaculture practices through joint research, technology transfer and human resource development; (17.) Mitigate the potential impacts of aquaculture on the environment and biodiversity including the spread of aquatic animal diseases caused by the uncontrolled introduction and transfer of exotic aquatic species and over-development of aquaculture; ...'⁸⁸

SEAFDEC is also spearheading a further set of in-shore initiatives that have implications for the sustainability of fisheries further out to sea in the form of fisheries *refugia*. According to Paterson *et al*, 'the concept of fisheries *refugia* was developed as a novel approach to the identification and designation of priority areas in which to integrate fisheries and habitat management in the context of high and increasing levels of small-scale fishing pressure in the South China Sea.'⁸⁹ The fisheries *refugia* concept has been defined as '(s)patially and geographically defined, marine or coastal areas in which specific management measures are applied to sustain important species [fisheries resources] during critical stages of their life cycle, for their sustainable use.'⁹⁰ According to the

⁸⁷ *Ibid.*, at 15-17.

⁸⁸ See: 2011 ASEAN-SEAFDEC Resolution, *ibid.*

⁸⁹ Christopher J. Paterson, *et al*, 'Fisheries refugia: a novel approach to integrating fisheries and habitat management in the context of small-scale fishing pressure', *Ocean & Coastal Management* 85 (2013) 214-229, at 214.

⁹⁰ Paterson *et al*, *ibid.*, at 215, citing *Reversing environmental degradation trends in the South China Sea and Gulf of Thailand*, Report of the Fifth Meeting of the Regional Working Group on Fisheries, UNEP (2005) UNEP/GEF/SCS/RWG-F.5/3.

1 SEAFDEC Regional Working Group on Fisheries (RWG-F), 'fisheries refugia
2 should:

- 3 · NOT be "no take zones",
- 4 · Have the objective of sustainable use for the benefit of present and future
5 generations,
- 6 · Provide for some areas within refugia to be permanently closed due to their
7 critical importance [essential contribution] to the life cycle of a species or group
8 of species,
- 9 · Focus on areas of critical importance in the life cycle of fished species,
10 including spawning, and nursery grounds, or areas of habitat required for the
11 maintenance of broodstock,
- 12 · Have different characteristics according to their purposes and the species or
13 species groups for which they are established and within which different
14 management measures will apply,
- 15 · Have management plans.⁹¹

16 Moreover, 'management measures that may be applied within fisheries refugia
17 may be drawn from the following [non-exhaustive] list:

- 18 · Exclusion of a fishing method (e.g. light luring, purse seine fishing),
- 19 · Restricted gears (e.g. mesh size),
- 20 · Prohibited gears (e.g. push nets, demersal trawls),
- 21 · Vessel size/engine capacity,
- 22 · Seasonal closures during critical periods,
- 23 · Seasonal restrictions (e.g. use of specific gear that may trap larvae),
- 24 · Limited access and use of rights-based approaches in small-scale fisheries.⁹²

25 Having outlined and discussed specific regional, national and local actions to
26 overcome barriers towards establishing a regional system of fisheries *refugia*
27 within the South China Sea, Paterson *et al* go on to conclude that the fisheries
28 *refugia* approach has been shown to provide 'an adequate platform for building
29 partnerships and enhancing communication between the environment and
30 fisheries sectors.'⁹³ Moreover, according to Paterson *et al*, this approach has
31 proved to be particularly relevant in Southeast Asia where coastal fishing
32 communities that rely on local fisheries as their main food source as well as their
33 livelihoods have disdained conservation efforts that are focused solely on the
34 establishment of no-take zones. Paterson *et al* then highlight the potential
35 benefits of the fisheries *refugia* concept generally, through its utilization for
36 effective fisheries and habitat management at the local level, for global fisheries
37 and biodiversity conservation as a whole.⁹⁴

38 Progress on establishing fisheries *refugia* within this region is being maintained
39 the SEAFDEC/UNEP/GEF Project on Establishment and Operation of a Regional
40 System of Fisheries *Refugia* in the South China Sea and Gulf of Thailand. The 3rd
41 Regional Scientific and Technical Committee Meeting, at Hai Phong City, Viet
42 Nam, on 5–7 February 2020 headlined: 'Improving Healthy Ocean Ecosystems

43 ⁹¹ See: SEAFDEC South China Sea Fisheries Refugia Initiative, accessible at: <https://fisheries-refugia.org/refugia-about/refugia-introduction>

44 ⁹² *Ibid.*

45 ⁹³ Paterson *et al*, *ibid.*, at 228.

46 ⁹⁴ *Ibid.*, at 214.

1 through Best Practices and Fishing Gear Innovations'.⁹⁵ The project design
2 consists of four main actions that are urgently needed: 1) Promotion of effective
3 fisheries management policies, 2) Development of innovative technology and
4 capacity building, 3) Enhancement fisheries resources and rehabilitation of the
5 seabed habitats, and 4) Strengthening national and regional cooperation and
6 coordination.⁹⁶
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8 Within this context, specific Malaysian efforts at establishing fishery *refugia* are
9 currently focused on two proposed sites, namely, a Lobster Refugia in Tanjung
10 Leman, Johor and the Tiger Prawn Refugia in Kuala Baram, Miri, Sarawak.
11 According to a recent progress report by the Malaysian Fisheries Department,
12 '(f)or the lobster refugia in Tanjung Leman, the actual site has not been
13 determined yet as scientific data gathering is still ongoing and the Department of
14 Fisheries Malaysia will only announce the refugia area once the spawning site of
15 the spiny lobster has been determined. The main fishing area for spiny lobsters
16 spans from southern Pahang to the tip of east Johor. ... As for the tiger prawn
17 refugia, the proposed site is located at the river mouth of Kuala Baram in Miri,
18 Sarawak and the refugia area has been roughly determined by researchers
19 studying the prawn population there. The proposed site for the tiger prawn
20 refugia is located near a mangrove swamp with a river mouth and nearby the
21 border of Brunei Darussalam.'⁹⁷
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27 **2) Gulf of Thailand**

28 Under SEAFDEC auspices, transboundary fishery management dialogues
29 between Malaysia and Thailand were discussed during the Fourth Meeting of the
30 Gulf of Thailand (GoT) Sub-Region in 2013. During this (4th) Meeting, it was
31 suggested that roundtable discussion between sets of two neighbouring
32 countries in the GoT should be conducted to discuss the issues revolving around
33 the effective management of fishing capacity and reducing illegal and destructive
34 fishing activities in the GoT. Subsequently, the 'Sub-regional Technical Meeting
35 on Effective Fisheries Management between Malaysia and Thailand' was
36 organized in 2014, to identify possible working areas that could be established
37 between these countries for the promotion of effective management of fishing
38 capacity, combating Illegal, Unreported and Unregulated (IUU) fishing and
39 management of trans-boundary stocks in the maritime jurisdictions of both
40 Malaysia and Thailand in the GoT, as well as in the Andaman Sea.⁹⁸
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50 ⁹⁵ See: SEAFDEC/UNEP/GEF/FR-RSTC.3 WP5.3 Accessible at:

51 <https://fisheries-refugia.org/3rd-rstc-meeting/3rd-rstc-doc/509-rstc3-wp5-3-gcf-note/file>

52 ⁹⁶ See: Executive Summary', *ibid*.

53 ⁹⁷ SEAFDEC/UN ENVIRONMENT/GEF Fisheries Refugia Project, Progress Report, Q4 2018 to Q2
54 2019, by Department of Fisheries Malaysia, Prepared: 11 September 2019 Accessible at:

55 <https://fisheries-refugia.org/fisheries-refugia-events/malaysia-reports/year-2019-3/456-my-rep2019q2-18-progress-report-q42018-till-q22019/file>

56 ⁹⁸ Worawit Wanchana, Magnus Torell, Somboon Siriraksophon, and Virgilia T. Sulit, 'Addressing
57 trans-boundary issues and consolidating bilateral arrangements to combat IUU fishing', *Fish for*
58 *the People*, 14(2) (2016) 48-53, at 50. Accessible at:

59 <http://repository.seafdec.org/handle/20.500.12066/993>
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1 The 2014 Meeting between Malaysia and Thailand identified three major issues
2 with regards to IUU fishing, *e.g.* dual flagging/registration/deregistration,
3 landing of catches in the neighboring countries' ports, and encroachment by
4 foreign (and national) fishing vessels in the coastal waters. It was then agreed
5 that a Memorandum of Understanding (MOU) between Malaysia and Thailand
6 should be developed as a priority long-term activity. This would become the
7 official mechanism for strengthening future cooperation between both countries.
8 Furthermore, a Joint Working Group should also be defined in the MOU. This
9 2014 Meeting also agreed that a proper mechanism for data recording should be
10 established for monitoring the landing of catches in the neighbouring countries'
11 port. In addition, fishing vessels under the IUU lists should be denied entry into
12 fishing ports of the participating countries in the GoT and Andaman Sea Sub-
13 region. In this connection, both countries agreed to nominate focal points to
14 coordinate the data exchange and establishing of a network for such purpose.⁹⁹
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18 Aside from tuna species, SEAFDEC has also reported in 2019, *inter alia*, that a
19 genetic/DNA study of Indo-Pacific mackerel stocks in the GoT had been
20 conducted to understand its stock structure, spawning area, migration pattern,
21 and life cycle concluded that the Indo-Pacific mackerel is a transboundary
22 species. This result encouraged the GoT countries to develop a joint management
23 plan covering Monitoring, Control & Surveillance (MCS) Network coordination
24 and national management measures for transboundary species.¹⁰⁰
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27 28 **3) Malacca Straits** 29 30

31 While Burbridge observed (in 1988) that '(t)he Strait of Malacca is thought to be
32 relatively rich in shrimp, and pelagic and demersal fish stocks with potential for
33 expansion of fisheries activities'¹⁰¹, he was unable to confirm this view, due to a
34 shortage of comprehensive data. On the other hand, reverting to Yahaya, she had
35 noted that by the late 1980s over-fishing in Malaysian waters was particularly
36 acute for the Straits of Malacca on the west coast of peninsular Malaysia.¹⁰² A
37 more recent survey by Jagerroos (2016) appears to confirm both of these
38 apparently divergent views. While affirming the quantities and commercial value
39 of the fishery resources accessible from the Malacca Straits area, Jagerroos
40 nevertheless cautions that these resources are declining at an alarming rate. As
41 she notes, '(t)he Straits of Malacca was historically and still is a productive
42 region for Malaysian marine capture fishery, with valuable demersal and pelagic
43 resources of finfish and shellfish. In terms of fishery productivity, this region
44 (also known as the west coast of Peninsular Malaysia) yields one of the highest
45 marine landings in Malaysia. The Strait contribution to the total marine landing
46 of Malaysia in 2013 was 48%. Fisheries statistics for the year 2013 in the Strait
47 showed that 82% of the landing comprised of finfish while the remaining 18%
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54 ⁹⁹ *Ibid.*

55 ¹⁰⁰ SEAFDEC, Report of the 8th Meeting of the Gulf of Thailand Sub-Region, Chonburi Province,
56 Thailand, 4-5 September 2019, Southeast Asian Fisheries Development Center (2019) 63pp. At
57 para.11, p.2.

58 ¹⁰¹ Peter R. Burbridge, 'Coastal and Marine Resource Management in the Strait of Malacca', *Ambio*,
59 Vol. 17, No. 3, East Asian Seas (1988) 170-177, at 170.

60 ¹⁰² Yahaya (1988) *ibid.*, at 84, citing several local studies.
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1 comprised primarily squid and prawns. The total value of marine resources in
2 the Strait is estimated to be USD\$7,124 million, which consists of both market
3 and non-market resources. The Malaysian commercial fisheries involved three
4 main types of gear the trawl fish, the purse seine and the anchovy purse-seine.
5 The traditional fisheries included shellfish collection and fishing with the use of
6 other seines, drift gill nets, traps, hooks and lines, bag nets, barrier nets and push
7 nets. Introduction of trawling in the 1960s increased fishery productivity
8 tremendously. However, a closer inspection of the fishery statistics coupled with
9 data obtained from field survey indicated that the health of the fish stocks is
10 declining considerably, particularly the demersal fishery resources.¹⁰³

13 This apparent emphasis by the Malaysian fishing industry, as well as relevant
14 Malaysian government departments and agencies on sustaining gross fishery
15 catch figures, rather than ensuring underlying marine ecosystem health, has
16 been noted by other commentators. For example, the previously cited (2013)
17 review of laws and institutions devoted to examining the implementation of the
18 ecosystem approach to fisheries management in Malaysia confirms the focus of
19 the relevant government institutional stakeholder, namely, the Fisheries
20 Department, on sustaining commercial fish catch.¹⁰⁴ According to the authors of
21 this review, the Malaysian Fisheries Department sees its success as measured by
22 the tonnage of fish that is landed yearly. Thus, '(i)ts annual fisheries statistics do
23 not discuss the health of fisheries-based ecosystems and focus entirely on
24 landings and value.'¹⁰⁵ Moreover, '(t)here is no mention of the ability of fisheries
25 ecosystems to support these figures.'¹⁰⁶ They go on to note that '(c)onservation
26 is undertaken by the Department of Fisheries, but the rationale behind
27 conservation and management is to ensure sustainability of commodity
28 production rather than the fisheries ecosystem as a whole.'¹⁰⁷ As the review
29 concludes succinctly on this issue: 'This has led to a situation where fish stocks
30 are not managed for long-term benefit but almost entirely for short-term
31 economic gain, leading to a skew in the conservation and management process.
32 The need to compare the less-tangible benefits of patrimony and the long-term
33 returns of sustainable fisheries stewardship against the more visible and cogent
34 profile of revenue and employment generated by their exploitation has led to a
35 situation where economic imperatives often overshadow fisheries conservation
36 efforts.'¹⁰⁸ Jagerroos too observes that: 'Without serious intervention, economic
37 imperative and pressing food and job security issues will solely drive the fishery
38 agenda with little regard for long term conservation of the already depleted
39 fishery resources.'¹⁰⁹

48 While confirming Yahaya's observation (above) that: 'the effects of intensive

51 ¹⁰³ Sylvia Jagerroos, 'Assessment of Living Resources in the Straits of Malacca, Malaysia: Case
52 Study', *Journal of Aquaculture & Marine Biology*, Vol. 4, Issue 1 (2016) 13pp, at p.1. Accessible at:
53 [https://medcraveonline.com/IAMB/assessment-of-living-resources-in-the-straits-of-malacca-
54 malaysia-case-study.html](https://medcraveonline.com/IAMB/assessment-of-living-resources-in-the-straits-of-malacca-malaysia-case-study.html)

55 ¹⁰⁴ See: Saad, J. *et al* (2013) at 46.

56 ¹⁰⁵ *Ibid.*

57 ¹⁰⁶ *Ibid.*

58 ¹⁰⁷ *Ibid.*

59 ¹⁰⁸ *Ibid.*

60 ¹⁰⁹ Jagerroos (2016) *ibid.*, at p.2/13.

1 trawling in the Straits were felt by the mid-80s. Catches were dwindling and fish
2 stocks were believed to have been over-exploited for some years by that time'¹¹⁰,
3 Jagerroos proceeds to note that very little bilateral co-operation took place over
4 these shared fisheries as between Malaysia and its neighbouring State across the
5 Malacca Strait, namely, Indonesia. Thus, '(w)hile the neighboring Indonesia took
6 to banning of trawling, Malaysia utilized other means to manage the problems
7 such as construction of artificial reefs, establishment of marine parks, increased
8 research and development and offerings of off-shore fishing licenses [11].
9 Attempts on joint assessment of these sources in the Strait by both countries
10 were conducted back in 1976 and in 1985; however these did not result in any
11 form of co-management of the shared resources [12].'¹¹¹
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14 **4) Andaman Sea**

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17 From a Malaysian perspective, as with South China Sea fisheries, tuna species are
18 seen as having the greatest potential for expansion in the northern reaches of the
19 Malacca Straits leading to the Andaman Sea, off the coastline in the north-
20 western region of Peninsular Malaysia. This corresponds to the East Indian
21 Ocean (EIO) area for the Indian Ocean Tuna Commission (IOTC), which Malaysia
22 is a member of. As the 2015 Malaysian national report to the Scientific
23 Committee of the IOTC notes: 'Tuna fisheries is considered to be future
24 contribution toward the increase in fisheries production as well as the main
25 factor to accelerate and develop deep-sea fishing industries. ... The Malaysian
26 government has taken steps to develop tuna fishing industries from coastal
27 waters, offshore waters within the Exclusive Economic Zone (EEZ) and open sea
28 especially in the Indian Ocean by joining as a member of the IOTC RFMO. ...
29 Overall, neritic tuna contributed 3.95% of the total marine landings. Although
30 the contribution in weight is rather low, the value of this group of fish is still
31 substantial at more than USD\$121 million in 2014.... Landings of neritic tuna in
32 Malaysia appear to have stabilised from 2010 to 2015.'¹¹²
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38 The 2018 Malaysian report to the IOTC then notes that: 'In 2017, 19 tuna long
39 line vessels were licenses (*sic*) where 13 tuna longline vessels were registered
40 and operate in the East of Indian Ocean (EIO) area and another 6 tuna longline
41 vessels were registered and operate in southwest of Indian Ocean. For vessels
42 (that) were operating in EIO, their target species are tropical tuna namely
43 yellowfin and bigeye meanwhile the vessels were operating in SIO their target
44 species is tuna albacore.'¹¹³ Further on, the same report noted that: 'In 2017, a
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48 ¹¹⁰ *Ibid.*, at p.3/13.

49 ¹¹¹ *Ibid.*, at p.3/13, citing World Wildlife Fund Malaysia (WWF) (2013) An assessment of fisheries
50 and marine ecosystem in Peninsular Malaysia, 69pp; and Martosubroto P (2000) Trend of the
51 fisheries in the Straits of Malacca, in Shariff M, et al. (eds.), *Towards Sustainable Management of*
52 *the Straits of Malacca*, 117-125, respectively.

53 ¹¹² Malaysia National Report to the Scientific Committee of the Indian Ocean Tuna Commission
54 (IOTC) for 2015, by Samsudin Basi, Sallehudin Jamon, Effarina Mohd Faizal, Nor Azlin Mokhtar,
55 Department of Fisheries, Malaysia (October, 2016) Received: 1 November 2016. IOTC-2016-
56 SC19-NR16.

57 ¹¹³ Malaysia National Report to the Scientific Committee of the IOTC, 2018, by Samsudin, B,
58 Sallehudin, J, Tengku. Balkis, T.S., and Nor Azlin, M, Department of Fisheries, Malaysia
59 (November, 2018) IOTC-2018-SC21-NR15, at 5.
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1 number of longline tuna vessel registered as a Malaysia Flag was increase (*sic*)
2 from 10 to 19 vessels and total landing of tuna and tuna-like (species) was
3 increased 49% compare in the 2016.¹¹⁴
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5 The Malaysian Department of Fisheries has also recently reported to the IOTC (in
6 2018 and 2019) that it had introduced several regulatory mechanisms for tuna
7 fishing vessels in this EIO area (including the Andaman Sea) as follows:
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10 1) The Fisheries Department has successfully implemented a Vessel Monitoring
11 System (VMS) for all high seas fishing vessels. It is based on Inmarsat (a British
12 satellite telecommunications company), utilizing Inmarsat C (a two-way data and
13 messaging communication service), Mini C and D+/B equipment. For tuna
14 longline vessels operating in Indian Ocean, they use the Argos and Iridium data
15 collection system(s) for their VMS. This VMS enables Fisheries Department
16 officials to track fishing vessel compliance with the geographical limits in their
17 license and to check position data contained in their catch and
18 effort/transshipment reports. The installation of Mobile Transceiver Units
19 (MTU) is mandatory under fishing vessel licensing regulation. Failure to do so
20 will cause the license of the vessel to be revoked or suspended under the
21 Fisheries Act 1985. To date, all Malaysian tuna long-line vessels have installed
22 these devices;
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27 2) To further improve quality of tuna catch data, the Department of Fisheries
28 also planned to implement an observer onboard (OBB) scheme (apparently, as
29 required by IOTC Resolution 11/04) for long line vessels operating in Indian
30 Ocean and purse seine vessels fishing in the domestic waters. However, in its
31 2019 Report, Malaysia noted that due to the lack of financial resources, human
32 (staff) capacity, and communication problems between captains and crew, the
33 observer onboard (OBB) program plan was still under consideration. Malaysia
34 had requested assistance from countries that have developed and implemented
35 this regional OBB scheme. However, due to the limited numbers of port
36 inspectors, the request could not be granted and subsequently, Malaysia has
37 requested assistance from the IOTC on this matter. Although Malaysia has yet to
38 implement the OBB scheme, Malaysia participated in the Regional Observer
39 Program (ROP) in 2018 for carrier vessel and fishing vessel to monitor
40 transshipment (of catches) at sea. Under IOTC resolution 18/06 (on At Sea
41 Transshipment and Conditions Relating to In-Port Transshipment), Malaysia
42 longliners transhipped at sea are monitored by the IOTC observer under the
43 ROP. Malaysia reported (in 2019) that there are 6 fishing vessels involved in this
44 programme for transshipment by large-scale fishing vessels that is indirectly
45 being monitored by these regional observer(s). All transshipment declarations
46 were sent to the Malaysian Department of Fisheries and the IOTC Secretariat, as
47 required by Resolution 18/06;¹¹⁵
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57 ¹¹⁴ *Ibid.*, at 6.

58 ¹¹⁵ See: Malaysia National Report to the Scientific Committee of the IOTC, 2019, by Sallehudin, J.,
59 Effarina M.F.A., Noor Hanis A.H., Tengku. Balkis, T.S., and Nor Azlin, M., Department of Fisheries,
60 Malaysia (October, 2019) IOTC-2019-SC22-NR15, at 18 & 19.
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1 3) A further action taken by the Malaysian Fisheries Department is to implement
2 a closed-circuit television (CCTV) monitoring system for tuna-fishing vessels.
3 The objective of this CCTV system is to monitor tuna vessels that were involved
4 in any illegal activities and thereby (possibly) replace the need to have observers
5 on board these vessels. In April 2018, three tuna long-line vessels were selected
6 to install with 24 hour CCTV (including night vision) to the front and rear views
7 of these vessels. The system is able to keep the data within 6-month period;¹¹⁶
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10 4) Finally, the 2019 Report also notes that from 2010, the Department of
11 Fisheries conducted regular sampling activities at the Penang port, both
12 collecting and processing information, and assisting tuna scientists with analysis
13 of catch data. However, from 2012 until mid-2016, all Malaysian flag vessels
14 unloaded their catches outside Malaysian port, so no port samplings program
15 were carried out. The port sampling program resumed after Malaysia registered
16 two designated tuna ports in 2016 (namely, the Penang Port and Langkawi Port)
17 to the present day. The 2019 Malaysian report to the IOTC noted that 13 tuna
18 fishing vessels unloaded their catches at Penang Port. Monitoring of tuna landing
19 and inspection at port by the Port Inspector was carried out for both Malaysian
20 tuna fishing vessels and foreign tuna fishing vessels. Sampling for neritic tuna
21 and other tuna-like species is the responsibility of the Fisheries Information
22 Management Division. Their sampling program covers all landing sites and
23 fishing ports along the west coast of Peninsular Malaysia, but apparently only for
24 vessels operating in the Malaysian Fisheries waters.¹¹⁷
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30 5) Sulu & Celebes Seas

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32 Last but certainly not least, the shared fish stocks in the Sulu and Celebes Seas off
33 the eastern coast of the Malaysian state of Sabah on Borneo island are easily the
34 richest in biological diversity due to their relationship with the extensive coral
35 reef systems that (still) thrive in this sub-region. For our purposes here, re:
36 transboundary fisheries management issues within and across Malaysian
37 maritime jurisdiction zones, this area of shared marine space borders with both
38 the (south-western) Philippines and main Indonesian islands of (the rest of)
39 Borneo and Sulawesi and is now encompassed within the vast 'Coral Triangle
40 Initiative' (CTI) that is heavily promoted and supported by multiple international
41 agencies and donors.¹¹⁸ Geographically, the CTI on Coral Reefs, Fisheries, and
42 Food Security (CTI-CFF) extends across a very large marine area of the south-
43 western aspect of the Pacific Ocean. It is bordered by the Philippines, Indonesia
44 (central and eastern), Malaysia (Sabah on Borneo island), Timor Leste, Papua
45 New Guinea, and the Solomon Islands. On the fisheries aspect, the CTI-CFF
46 Ecosystem Approach to Fisheries Management (EAFM) Working Group is a
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52 ¹¹⁶ 2018 Report, *ibid.*, at 19.

53 ¹¹⁷ 2019 Report, *ibid.*, at 18.

54 ¹¹⁸ Full title: The Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF).
55 The CTI is a multilateral partnership working together to sustain extraordinary marine and
56 coastal resources by addressing crucial issues such as food security, climate change and marine
57 biodiversity. It was established in 2009 and is now underpinned by an Agreement on the
58 Establishment on the Regional Secretariat of the Coral Triangle Initiative on Coral Reefs,
59 Fisheries and Food Security, which was scheduled to enter in force on 20 November 2014. More
60 information on the CTI is accessible at: <http://www.coraltriangleinitiative.org/>
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1 technical working group developed by the six (6) Member Countries with a focus
2 on achieving Goal 2 of CTI-CFF Regional Plan of Action, namely, the Ecosystem
3 Approach to Management of Fisheries (EAFM) and other Marine Resources Fully
4 Applied. This working group also plans to develop and manage fisheries in a
5 manner that addresses the multiple needs and desires of societies, without
6 threatening the ecosystems and marine resources for the benefit of the future
7 generation.¹¹⁹
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10 Other specific sub-regional arrangements include consideration of the proposed
11 development of fisheries policy framework to support tuna management at
12 national and sub-regional areas where transboundary issues exist, including the
13 *Sulu Sea, Celebes Sea, South China Sea, and Andaman Sea* – all of these involving
14 Malaysia.¹²⁰ Within the Sulu-Celebes/Sulawesi Sea(s) area especially, a recent
15 policy-related report notes that: ‘As the apex of the Coral Triangle, the richness
16 in biodiversity of the Sulu and Celebes region sustains the livelihoods and food
17 security of about 410 million people in that region.’¹²¹ It then outlines three key
18 initial findings, as follows:
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- 20 • This area is home to world-renowned coral reefs that support tourism, fishing
21 and reef-sourced biomedical industries, but these sectors are threatened by
22 unsustainable fishing practices and general (land-based sources of)
23 environmental damage;
24
- 25 • Although substantial international shipping traffic criss-crosses the Sulu and
26 Celebes Seas, most of this shipping does not stop at ports within these Seas. The
27 region’s largest ports are on opposite sides of the islands framing these Seas. The
28 combination of distant major ports and abundant shipping traffic puts the region
29 at risk of poor maritime safety and slow response times to shipping disasters like
30 oil spills or vessel-threatening storms;
31
- 32 • Although the number of instances of violence at sea and kidnapping for ransom
33 are below recent highs, the presence of the organized illicit actors that
34 perpetuate these crimes continues to dis-incentivize greater investment in
35 maritime infrastructure, tourism, coastal development, and new blue economy
36 opportunities.¹²²
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41 In relation to fisheries in particular, a further key finding is that although the
42 area is rich in marine biodiversity, over-fishing is still confined to specific marine
43 sub-regions. Thus, widespread industrial fishing does not exist in the Sulu Sea,
44 which is almost entirely within the various maritime jurisdiction zones of the
45 Philippines, while significant over-fishing does take place in the
46 Celebes/Sulawesi Sea, which is mainly within the jurisdictions of both Indonesia
47 and the Philippines.¹²³ In recognition of these two adjoining/connected seas as a
48 large marine ecosystem (LME) Indonesia, Malaysia and the Philippines
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53 ¹¹⁹ More information on the CTI’s programme on the Ecosystem Approach to Fisheries
54 Management (CTI-EAFM) is accessible at: <http://www.coraltriangleinitiative.org/eafm>

55 ¹²⁰ SEAFDEC Council, 45th Meeting, April, 2013. Accessible at: ...

56 ¹²¹ See: Alexandra Amling *et al*, *Stable Seas: Sulu & Celebes Sea* report, One Earth Future (19
57 February, 2019) 107pp., at 56. Accessible from *Stable Seas* website at:
58 <https://stableseas.org/publications>

59 ¹²² *Ibid.*, at 6.

60 ¹²³ *Ibid.*, at 55.
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1 formulated a biodiversity conservation vision for the Sulu-Sulawesi Marine
2 Ecoregion (SSME) in 2001. Significantly, this vision was based on the SSME
3 Conservation Program launched in 1999 by the World Wide Fund for Nature
4 (WWF) and its partners. This Program adopted a two-pronged approach: First,
5 the formulation of a Biodiversity Vision - a 50-year conservation goal - for this
6 ecoregion, and second, the development of a stakeholders' Ecoregion
7 Conservation Plan (ECP) based on the ecoregion's Biodiversity Vision. As Miclat
8 *et al* point out in their account of the evolution of the SSME's ECP, it is notable
9 that there was a shift from a private, non-governmental organization (NGO)-
10 facilitated process, to a government-led planning process, *via* the establishment
11 of interim governance mechanisms, to ensure coordination in the development
12 of the ECP.¹²⁴
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16 To formally articulate this vision, the three governments developed the SSME
17 Ecoregion Conservation Plan (ECP) in 2003. The SSME ECP was a product of 12
18 stakeholder workshops at the local, national, and tri-national levels conducted
19 over the course of 2 years. On the basis of this ECP, the three countries signed a
20 Memorandum of Understanding (MOU) to conserve the Sulu-Sulawesi Marine
21 Ecoregion (SSME) during the Seventh Conference of the Parties to the
22 Convention on Biological Diversity held in Kuala Lumpur in 2004. This SSME
23 (MOU) was ratified in 2006 and includes a network of 58 priority conservation
24 areas under various forms of management and/ or protection to be established
25 over a period of 50 years.¹²⁵
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30 The Sulu-Sulawesi Marine Ecoregion (SSME) Ecoregion Conservation Plan (ECP)
31 subsequently established a trilateral governance structure composed of the Tri-
32 National Committee for the SSME and three Sub-Committees on, respectively,
33 Charismatic and Threatened Species, Marine Protected Areas and Networks, and
34 most significantly for our purposes here - *Sustainable Fisheries*. In 2008, these
35 Sub-Committees then prepared individual Action Plans on each of these three
36 themes for implementation by the three States in the SSME.¹²⁶ The Action Plan of
37 the Sub-Committee on Sustainable Fisheries promotes the ecosystem-based
38 management of fisheries and contains specific activities to protect fisheries-
39 supporting ecosystems, including the coastal communities that rely on these
40 fisheries for their livelihoods.¹²⁷
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45 The Ecoregion Conservation Plan (ECP) has 10 objectives, which are linked to
46 the SSME vision, and contains three country action plans and a fourth ecoregion-
47 level action plan for joint tri-national activities. Each action plan identifies broad
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50 ¹²⁴ Evangeline F.B. Miclat, Jose A. Ingles, Jose Noel B. Dumaup. 'Planning across boundaries for
51 the conservation of the Sulu-Sulawesi Marine Ecoregion', *Ocean & Coastal Management*, Vol.49
52 (2006) 597-609, at 597 & 599-601.

53 ¹²⁵ See: Comprehensive Action Plans of the Sulu-Sulawesi Marine Ecoregion: A Priority Seascape
54 of the Coral Triangle Initiative, Asian Development Bank (2011) at 1. Accessible at:
55 <https://www.adb.org/sites/default/files/publication/29160/ssme-action-plans.pdf>

56 ¹²⁶ See: Report on Transboundary Diagnostic Analysis, Sulu-Celebes Seas Sustainable Fisheries
57 Management Project, 169pp. Executive Summary, at p.4. Accessible at:
58 [http://www.coraltriangleinitiative.org/sites/default/files/resources/SuluSulawesi-](http://www.coraltriangleinitiative.org/sites/default/files/resources/SuluSulawesi-TDA_Final.pdf)
59 [TDA_Final.pdf](http://www.coraltriangleinitiative.org/sites/default/files/resources/SuluSulawesi-TDA_Final.pdf)

60 ¹²⁷ *Ibid.*, at 137.
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1 activities under the 10 ECP objectives addressing (i) governance and
2 management strategies; (ii) functional networks of conservation and protected
3 areas; (iii) sustainable livelihood systems; (iv) sustainable economic
4 development; (v) research for science-based and informed management
5 decisions; (vi) communication, education, and outreach programs; (vii)
6 sustainable financing for conservation and resource management; (viii) capacity
7 building for stakeholders; (ix) protection of threatened marine species and their
8 habitats; and (x) fisheries management.¹²⁸
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11 Under the general auspices of the geographically much larger CTI itself, the
12 specific tri-lateral relationship between Malaysia, Indonesia and the Philippines
13 in the Sulu-Celebes/Sulawesi Sea(s) area is also being advanced in terms of coral
14 reef system protection for fishery activities, as a specific aspect of wider socio-
15 economic development, including ensuring food security for these far-flung
16 communities, as well as national security purposes, in relation to the prevention
17 of terrorist activities. To begin with the latter, national security-terrorism
18 prevention aspect(s) of this sub-regional arrangement, this manifests itself most
19 vividly in the form of a trilateral joint maritime enforcement operation.¹²⁹
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23 According to Storey, this joint operation by Indonesia, Malaysia and the
24 Philippines came about in response to maritime attacks by the Abu Sayyaf Group
25 (ASG) – a local criminal-terrorist group mainly operating in southern Philippines,
26 in early 2016.¹³⁰ These incidents compelled the three governments to strengthen
27 security cooperation in the Sulu-Celebes Seas. On 5 May 2016, the foreign
28 ministers and chiefs of defence of the three countries met in Indonesia and
29 issued a joint declaration in which they agreed to increase naval patrols and
30 strengthen communication and information exchange. Over the next six months,
31 meetings were held on a monthly basis among the foreign or defence ministers,
32 and the chiefs of staff, to operationalize trilateral security cooperation in the
33 Sulu-Celebes Seas. This initiative was to provide coordinated naval patrols,
34 combined air patrols and the exchange of information and intelligence in the
35 affected area. In this regard, the TMP is based on the Malacca Straits Patrol
36 (MSP) model, successfully conducted by the armed forces of Indonesia, Malaysia,
37 Singapore and Thailand in that strategic waterway since 2004.¹³¹ However, the
38 Trilateral Maritime Patrols (TMP) initiative was not formally launched until 19
39 June 2017 and air patrols only began in October 2017. As Storey notes, the
40 initiative has improved communication and information exchange among the
41 three navies, but (as of mid-2018) it has yet to be fully operationalized, mainly
42 due to sensitivities over disputed territorial sovereignty and related overlapping
43 maritime jurisdiction issues, as well as financial resource and capacity
44 deficiencies.¹³² Moreover, Storey provides two additional reasons for the TMP's
45 slow implementation, as follows; 'First, a much larger maritime space to monitor
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54 ¹²⁸ See: Comprehensive Actions Plans for SSME (2011) *ibid*.

55 ¹²⁹ See: Ian Storey, 'Trilateral Security Cooperation in the Sulu-Celebes Seas: A Work in Progress',
56 ISEAS Perspective, Issue 2018, No.48, Singapore, 27 August 2018. 7pp. Accessible at:
57 https://www.iseas.edu.sg/images/pdf/ISEAS_Perspective_2018_48@50.pdf

58 ¹³⁰ *Ibid.*, at 2-3.

59 ¹³¹ *Ibid.*, at 3.

60 ¹³² *Ibid.*, at 3-4.
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1 and patrol. Second, while piracy/sea robbery in the Straits of Malacca is a
2 relatively straightforward criminal issue, the piracy-terrorism nexus in the Sulu-
3 Celebes Seas is more complex in that it not only requires increased cooperation
4 among the three countries' national defence and counter-terrorism agencies but
5 also improved inter-agency cooperation in the participating countries
6 themselves.¹³³

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9 In the case of the former, environmental, fisheries and food security connexions,
10 both the SSME specifically, and the CTI generally, are placing great emphasis on
11 multiple stakeholder outreach efforts. This holistic approach is increasingly seen
12 as a model of how an ostensibly (international) scientific research programme
13 has transcended its initially relatively narrow disciplinary beginnings to become
14 a successful multilateral stakeholder forum for relevant and concerned actors in
15 this region, beyond just the governments themselves. Fidelman *et al* have
16 recently charted this progress towards inculcating multiple stakeholder views
17 within the nascent international governance framework of the CTI.¹³⁴ They
18 focused on identifying influential stakeholders, their beliefs and interests, their
19 network relations, and their capacity to leverage resources towards meeting CTI
20 goals.¹³⁵ They then applied the 'Advocacy Coalition Framework'¹³⁶ to examine
21 the views of main CTI stakeholders to better understand their efforts to design
22 and implement marine management policies. Fidelman *et al* conclude *inter alia*
23 that 'The CTI presents many characteristics of a nascent, collaborative policy
24 subsystem, one which is newly formed or in the process of forming and involves
25 collaborative over adversarial relations. Among the stakeholders consulted,
26 there is largely strong support for the CTI objectives, convergence in policy
27 beliefs (e.g., pro community-based conservation), and instances of collaboration
28 at different levels. It is important to note that in collaborative policy subsystems,
29 there are still disagreements among stakeholders. However, these disagreements
30 are overcome by finding enough common ground to cooperate. In other words,
31 despite the differences among CTI stakeholders, the goals of the Initiative may be
32 close enough to their policy preferences and beliefs to enable collaborative
33 action to achieve similar or related objectives.'¹³⁷

40 41 **Conclusions**

42
43 As the US National Intelligence Community (NIC) report on, *inter alia*, South
44 China Sea fisheries observes, '(a) key question regarding the long-term
45 sustainability of South China Sea fisheries is whether the region's countries can
46 adopt sufficient conservation measures to ease overexploitation, particularly
47 pertaining to multilateral management mechanisms. The majority of South China
48 Sea fish stocks stretch across the maritime borders (or the potential but

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52 ¹³³ *Ibid.*, at 6.

53 ¹³⁴ Pedro Fidelman, Louisa S. Evans, Simon Foale, Christopher Weible, Franciska von Heland,
54 Dallas Elgin, 'Coalition cohesion for regional marine governance: A stakeholder analysis of the
55 Coral Triangle Initiative', *Ocean & Coastal Management* 95 (2014) 117-128, at 117.

56 ¹³⁵ *Ibid.*, at 125.

57 ¹³⁶ Initially designed by Paul Sabatier and Hank Jenkins-Smith to explain political behaviour and
58 policy change, see: Sabatier & Jenkins-Smith, *Policy Change and Learning: an Advocacy Coalition*
59 *Approach*, Westview Press, Boulder, CO. (1993)

60 ¹³⁷ Fidelman *et al* (2014) at 125.

1 undefined maritime borders) of numerous countries. Thus effective conservation
2 measures would require a concerted effort on the part of multiple states. Despite
3 the fact that nearly all states bordering the South China Sea are highly reliant on
4 the region's marine fisheries and therefore share a common interest in
5 sustainably managing these stocks, it remains to be seen whether such
6 incentives can overcome opposing national priorities centered on the
7 establishment and enforcement of national sovereignty in maritime and
8 territorial disputes.¹³⁸ A contemporary news report appears to confirm
9 continuing bilateral maritime disputes between Chinese industrial-level fishing
10 efforts and local fishing communities of individual ASEAN member States in the
11 region, in this case - Indonesia.¹³⁹
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14 On the other hand, a recent fisheries stakeholder assessment exercise identified
15 key regional issues and trends facing marine capture fisheries in Southeast Asia,
16 as well as relevant considerations and strategies in potentially addressing these
17 key issues and trends.¹⁴⁰ This assessment first confirmed that many fisheries
18 issues in Southeast Asia are indeed transboundary in nature and will thus benefit
19 from improved management involving regional dialogues and strategies. This in
20 turn requires States in the region to develop and support regional alliances and
21 networks, as well as seek partnerships with the private sector to ensure effective
22 implementation of agreed strategies.¹⁴¹ Based on this survey, intra-ASEAN co-
23 operation over shared fishery resources afford greater opportunities for success.
24 However, these (more) positive scenarios are always operating within the
25 shadow of the looming presence of the Chinese State-sponsored, industrialized
26 fishing effort. Notwithstanding, the analysis from this stakeholder exercise
27 assessment provided a better understanding of the interplay between
28 stakeholders; identifying key points of influence as well as strengths and
29 weaknesses within the framework of promoting sustainable fisheries in a multi-
30 stakeholder context.¹⁴² Several strategies on how to improve regional fisheries
31 management in the Southeast Asian region were then proposed by this
32 stakeholder exercise, as follows: Strengthening transboundary fisheries
33 management; engaging with the private fisheries sector; implementing the
34 ecosystems approach to fisheries management; addressing maritime security
35 issues; and last but not least, addressing globalization of trade and market access
36 issues.¹⁴³
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45 Many of the above proposals for the improvement of Southeast Asian fisheries
46 sustainability in general, dovetail with the conclusions from the analysis in the
47 present study on transboundary fisheries management from the Malaysian
48 perspective. In particular, it is notable that *holistic* strategies based on the
49 ecosystem approach to fisheries management, and a 'bottom-up', stakeholder
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52 ¹³⁸ US NIC report (2016), *ibid.*, at 18.

53 ¹³⁹ See: Hannah Beech & Muktitia Suhartono, 'China stakes claim to Indonesia's rich seas' *The New*
54 *York Times (International Edition)* newspaper, 2 April, 2020 at 3.

55 ¹⁴⁰ Robert Pomeroy, John Parks, Kitty Courtney & Nives Mattich, 'Improving marine fisheries
56 management in Southeast Asia: Results of a regional fisheries stakeholder analysis', *Marine*
57 *Policy*, Vol.65 (March, 2016) 20-29.

58 ¹⁴¹ *Ibid.*, at 20 & 22.

59 ¹⁴² *Ibid.*, at 23-25.

60 ¹⁴³ *Ibid.*, at 27-28.
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1 approach to fishing communities, are gaining favour in the region as a whole, and
2 specifically in Malaysian interactions with her neighbouring States, especially
3 within the Sulu-Celebes/Sulawesi Seas sub-region. At the legal and institutional
4 level, despite the continuing lack of *formal* transboundary fisheries agreements,
5 there are strengthening levels of *informal* regional and sub-regional
6 organizations and arrangements for co-operation over fisheries in relation to the
7 above approaches. Overall, therefore it is possible to conclude that Southeast
8 Asian transboundary fisheries co-operation and management is progressing
9 along the right pathways but needs more co-ordination between regional, sub-
10 regional and national levels to achieve its goals.
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