

# JOURNAL OF OCEAN GOVERNANCE IN AFRICA

JOGA VOLUME 3 2025



juta

## **Journal of Ocean Governance in Africa**

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First Floor, Sunclare Building,  
21 Dreyer Street,  
Claremont 7925

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ISSN: 2710-4044

Typeset in Melior 10.5pt on 13pt  
Typesetter: Wouter Reinders  
Cover design: Drag and Drop

Printed and bound by

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## *EDITORIAL TEAM*

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# BENEFICIAL OWNERS OF VESSELS AND STATE RESPONSIBILITY FOR ILLEGAL FISHING

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*Many African coastal States suffer the adverse impacts of illegal fishing in their exclusive economic zones. The situation is aggravated by the failure of States to act against violations of fisheries regulations by vessels flying their flag. In its advisory opinion of 2015, the International Tribunal for the Law of the Sea determined that a vessel's flag State has a due diligence obligation to take necessary measures to ensure that vessels flying its flag comply with such regulations. However, due to the limitations imposed by international law on enforcement jurisdiction, a flag State may not be able to enforce its measures against persons located abroad. It is suggested that coastal States should also hold beneficial owners of vessels responsible for violations of their fisheries regulations. There are strong arguments under international law that the States in which the beneficial owners of fishing vessels are located have an obligation to take measures against such owners if their vessels engage in illegal fishing. Including vessel owner States in combating illegal fishing could make it more difficult for the persons benefiting from them to engage in such activities.*

**[Keywords]** IUU fishing, exclusive economic zone, beneficial owners, state responsibility, coastal state obligations, flag state obligations, vessel owner state obligations

## I INTRODUCTION

Many African coastal States experience the impact of illegal fishing in their waters, with a considerable percentage of

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fish harvested in these regions illegally caught.<sup>1</sup> The direct consequences of the illegal fishing activities include a depletion of marine resources and damage to the marine environment.<sup>2</sup> Illegal fishing operations also undermine management and conservation measures by coastal States and regional organisations, and reduce marine resources available for local consumption, thereby impacting the State's food resources and economy. Furthermore, illegal fishing may be connected with other criminal activities such as forced labour, corruption, money laundering and trafficking in humans, drugs and weapons, posing threats to a coastal State's maritime and national security.<sup>3</sup>

Illegal fishing occurs both on the high seas and in maritime zones that are subject to the jurisdiction of coastal States. For example, in West Africa, IUU fishing is prevalent in the

<sup>1</sup> A Doumbouya et al 'Assessing the effectiveness of monitoring control and surveillance of illegal fishing: The case of West Africa' (2017) 4(50) *Frontiers in Marine Science* 1–10 at 2; E Merem et al 'Analyzing the tragedy of illegal fishing on the West African Coastal Region' (2019) 9(1) *International Journal of Food Science and Nutrition Engineering* 1–15; and A Daniels et al 'Western Africa's missing fish: The impacts of illegal, unreported and unregulated fishing and under-reporting catches by foreign fleets' (2016) available at [https://media.odi.org/documents/Western\\_Africas\\_missing\\_fish.pdf](https://media.odi.org/documents/Western_Africas_missing_fish.pdf) (accessed 31 October 2025).

<sup>2</sup> See also, African Union 'Validation Workshop for Report on Africa's Policy Guidelines to Curb IUU Fishing and Promoting Transparency in the African Fisheries Sector' available at <https://au.int/en/newsevents/20230705/validation-workshop-report-africas-policy-guidelines-curb-iuu-fishing-and> (accessed 31 October 2025).

<sup>3</sup> See INTERPOL 'International law enforcement Cooperation in the fisheries sector: A guide for law enforcement practitioners' (2018) available at <https://www.interpol.int/content/download/5147/file/GuideInterLawEnforcementCoop-entier-WEB-2019-04.pdf> (accessed 31 October 2025); C Lewerenz & J Vorrath 'Illegal fishing and maritime security – towards a land- and sea-based response to threats in West Africa' (2015) 2 *SWP Comments* 1–4; T N Phelps Bondaroff, T Reitano & W van der Werf 'The illegal fishing and organised crime nexus: Illegal fishing as transnational organised crime' (2015) available at <https://globalinitiative.net/wp-content/uploads/2015/04/the-illegal-fishing-and-organised-crime-nexus-1.pdf> (accessed 31 October 2025); UNODC 'Rotten fish – a guide to addressing corruption in the fisheries sector' (2019) available at <https://nafig.org/wp-content/uploads/2019/08/Rotten-Fish.pdf> (accessed 31 October 2025); and I Okafor-Yarwood 'The cyclical nature of maritime security threats: Illegal, unreported, and unregulated fishing as a threat to human and national security in the Gulf of Guinea' (2020) 13(2) *African Security* 116–146.

exclusive economic zones (EEZs) of these States.<sup>4</sup> This led the Sub-Regional Fisheries Commission (SRFC),<sup>5</sup> a fisheries commission comprising seven West African States,<sup>6</sup> to request the International Tribunal for the Law of the Sea (ITLOS)<sup>7</sup> for an advisory opinion regarding illegal fishing in their EEZs.<sup>8</sup>

It has been recognised that beneficial owners<sup>9</sup> of vessels play a significant role in IUU fishing conducted by their vessels since they are often responsible for the organisation of the IUU fishing activities and benefit most from them.<sup>10</sup> By using flags of

<sup>4</sup> Op cit note 1.

<sup>5</sup> The SRFC was created pursuant to the 1985 Convention portant Création de la Commission Sous-Régionale des Pêches (amended on 14 July 1993) available at <https://faolex.fao.org/docs/pdf/mul25012.pdf> (accessed 31 October 2025).

<sup>6</sup> These are Cabo Verde, Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal and Sierra Leone.

<sup>7</sup> The International Tribunal for the Law of the Sea (ITLOS) is established in accordance with Annex VI of the LOSC.

<sup>8</sup> *Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission* 2015 ITLOS Reports 4 (IUU Advisory Opinion).

<sup>9</sup> The following definition of beneficial owner is suggested by the Financial Action Task Force (which is the global money laundering and terrorist financing watchdog and sets international standards that aim to prevent these illegal activities): ‘Beneficial owner refers to the natural person(s) who ultimately owns or controls a company and/or the natural person on whose behalf a transaction is being conducted. It also includes those persons who exercise ultimate effective control over a legal person or arrangement. Only a natural person can be an ultimate beneficial owner, and more than one natural person can be the ultimate beneficial owner of a given legal person.’ See Financial Action Task Force *International Standards on Combating Money Laundering and the Financing of Terrorism & Proliferation* (2012–2023) 120; and Financial Action Task Force *Guidance on Transparency and Beneficial Ownership* (2014).

<sup>10</sup> The Environmental Justice Foundation (EJF) et al ‘Identifying EU nationals who profit from foreign illegal fishing activities: The importance of beneficial ownership transparency’ (2024) 1 available at [https://www.iuuwatch.eu/wp-content/uploads/2024/05/Beneficial-Ownership-briefing\\_Final.pdf](https://www.iuuwatch.eu/wp-content/uploads/2024/05/Beneficial-Ownership-briefing_Final.pdf) (accessed 31 October 2025); and A Brush Strings Attached: *Exploring the Onshore Networks behind Illegal, Unreported, & Unregulated Fishing* (2019).

convenience<sup>11</sup> and nominee companies<sup>12</sup> as registered owners of the vessels, they can conceal their identities, frequently change the vessel's flag and legal ownership, and conduct their activities with impunity. However, there is growing attention on identifying the beneficial owners of vessels that engage in illegal fishing.<sup>13</sup>

Considering this development, this article focuses principally on the question of whether States in which the beneficial owners of vessels are located (hereinafter referred to as vessel owner States) have, in light of the rights and obligations of States under the 1982 United Nations Convention on the Law of the Sea (LOSC),<sup>14</sup> an obligation to act against illegal fishing involving their vessels in the EEZ of another State. As discussed in more detail below, under the LOSC, coastal States can, and are also obliged to, regulate fishing activities in their EEZ. This means that a State that is affected by illegal fishing can and should enforce its regulations against the addressees of such regulations. This differs from high seas fishing, where the vessel's flag State is mainly responsible for ensuring that it does not engage in illegal fishing.

The first part of this article outlines the legal status of the EEZ and the rights and obligations of coastal and other States in respect of this maritime zone. This will be followed by an analysis of the IUU Advisory Opinion and its impact on IUU fishing. Although the opinion clarifies that flag States have a responsibility to act against illegal fishing by vessels flying their flag in the EEZs of other States, it is submitted that its practical value is limited. Therefore, this article explores whether there is a legal basis under international law to argue that a vessel

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<sup>11</sup> See for example Daniels, op cit note 1 at 11; and J Swan *Fishing Vessels Operating under Open Registers and the Exercise of Flag State Responsibilities – Information and Options* (2002 FAO Fisheries Circular No. 980 FIPP/C980).

<sup>12</sup> See D Nielson & J Sharman *Signatures for Sale: How Nominee Services for Shell Companies Are Abused to Conceal Beneficial Owners*. (2022); and Brush op cit note 10 at 17.

<sup>13</sup> See for example T Kiepe & P Low 'Using beneficial ownership information in fisheries governance' (2024) 14 available at <https://www.openownership.org/en/publications/using-beneficial-ownership-information-in-fisheries-governance> (accessed 31 October 2025).

<sup>14</sup> 1982 United Nations Convention on the Law of the Sea [1833 UNTS 3 21 ILM 1245].

owner State has an obligation to prevent its nationals<sup>15</sup> from engaging in IUU fishing as beneficial owners of vessels. This is followed by suggestions for provisions in a coastal State's fisheries regulations that could help in holding vessel owner States liable for the illegal activities of their nationals. It concludes with the observation that the joint involvement of coastal, flag and vessel owner States is required to effectively combat IUU fishing, which should not rest solely with one of these States.

Regarding the terminology used in this article, illegal fishing activities are often referred to as Illegal, Unreported and Unregulated (IUU) fishing. This definition follows from paragraph 3 of the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing.<sup>16</sup>

<sup>15</sup> In this article, the term 'nationals' will, unless the context suggests otherwise, be used if it is intended to include both nationals of a State in a strict sense and persons who are habitually resident within the territory of that State. See also, C E Blattner 'The unexplored: Direct extraterritoriality' in C E Blattner (ed) *Protecting Animals Within and Across Borders: Extraterritorial Jurisdiction and the Challenges of Globalization* (2019) 173.

<sup>16</sup> FAO International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, adopted by FAO's Committee on Fisheries on 2 March 2001 and endorsed by the FAO Council on 23 June 2001 (IPOA IUU), text included in FAO 'International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing' (2001) available at <https://www.fao.org/documents/card/es/c/71be21c9-8406-5f66-ac68-1e74604464e7/> (accessed 31 October 2025). According to par 3 of IPOA IUU, illegal fishing refers to activities conducted in contravention of national and international laws. It includes fishing in a country's waters without permission or against its laws. It also refers to fishing in areas beyond national jurisdiction (known as the high seas) in violation of the rules of the regional fisheries management organisation (RFMO) responsible for the area, by vessels from a country that is party to the RFMO in question. Unreported fishing involves non-reporting or misreporting of information on fishing operations and their catches to the relevant national or RFMO authorities, in contravention of the reporting procedures in place. Unregulated fishing includes activities in RFMO areas conducted by vessels without nationality, or from countries that are not party to the RFMO (and thus technically not obliged to abide by its rules), in a manner that is not consistent with RFMO management measures. It also covers fishing in the high seas outside RFMO responsibility, including fishing of species for which no RFMO measures apply, and that is inconsistent with state responsibility for the conservation of marine resources. See also G A Oanta 'Illegal fishing as a criminal act

From a coastal State's perspective, IUU fishing activities are those that breach its regulations, which can be caused by the activities of the vessel in the coastal State's waters, such as fishing without a licence (including in terms of species, size or volume) or a failure to comply with reporting requirements.

## II EEZ REGIME

A coastal State may claim an EEZ that extends no more than 200 nautical miles from the State's applicable baselines.<sup>17</sup> The regime applying to the EEZ differs from that of the territorial sea and archipelagic waters in that a coastal State does not have sovereignty in the EEZ, but sovereign rights.<sup>18</sup> In other words, instead of having full jurisdictional rights that are limited by the LOSC, it only has those rights that the LOSC specifically grants to the coastal State. In relation to fisheries, a coastal State has, according to Article 56 of the LOSC: '[S]overeign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil [...]'. These rights are subject to various conditions set out in the LOSC. The types of regulations that a coastal State can adopt in relation to fisheries and fisheries-related activities are set out, on a non-exhaustive basis, in Article 62(4) of the LOSC.<sup>19</sup>

Limitations on a coastal State's enforcement powers in the EEZ are set out in Article 73 of the LOSC.<sup>20</sup> ITLOS and Annex

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at sea' in E Papastavridis & K Trapp (eds) *La Criminalité en Mer/Crimes at Sea*, *Hague Academy of International Law, The Centre for Studies and Research in International Law and International Relations* (2014) 149–197 at 152; and M A Palma, M Tsamenyi & W Edeson *Promoting Sustainable Fisheries* (2010) at 37.

<sup>17</sup> Article 57 of the LOSC.

<sup>18</sup> M Forteau & J M Thouvenin *Traité de Droit International de la Mer* (2017) 387; D R Rothwell & T Stephens *The International Law of the Sea* 2 ed (2016) 87; and A Proelss 'Article 55: Specific legal regime of the exclusive economic zone' in A Proelss (ed) *The United Nations Convention on the Law of the Sea. A Commentary* (2017) 408–418 at par 5.

<sup>19</sup> See J Harrison & E Morgera 'Article 62: Utilisation of Living Resources' in Proelss *LOSC Commentary* op cit note 18 at 493–506 par 23.

<sup>20</sup> See J Harrison 'Article 73: Enforcement of laws and regulations of the coastal State' in Proelss *LOSC Commentary* op cit note 18 at 556–563.

VII arbitral tribunals<sup>21</sup> (together referred to as LOSC tribunals) have clarified that the measures that a State may adopt pursuant to Article 73(1) of the LOSC to enforce its regulations must be necessary, and that the enforcement of such measures is subject to the principle of reasonableness.<sup>22</sup> However, a coastal State's ability to enforce its regulations may also be constrained by more practical issues, such as lack of human, financial, and material resources<sup>23</sup> and the involvement of vessels flagged to States that fail to monitor and sanction illegal fishing operations.<sup>24</sup> Moreover, Article 292(1) of the LOSC provides that if a coastal State breaches Article 73(2) of the LOSC by failing to release the vessel upon the posting of a reasonable bond, or by demanding an unreasonably high bond amount, prompt release proceedings may be initiated before ITLOS by or on behalf of the flag State.<sup>25</sup>

A coastal State has several obligations in respect of its EEZ. For example, it must ensure through proper conservation and management measures that the maintenance of living resources in its EEZ is not endangered by over-exploitation.<sup>26</sup> It has to determine the allowable catch in its EEZ and to the extent that this exceeds its own harvesting capacity, it must give other States access to the surplus.<sup>27</sup> However, given that the coastal

<sup>21</sup> Article 287(1) of the LOSC.

<sup>22</sup> *M/V 'Saiga' (No. 2) (Saint Vincent and the Grenadines v. Guinea)* 1999 ITLOS Reports 10 par 155; and *M/V 'Virginia G' (Panama/Guinea-Bissau)* 2014 ITLOS Reports 4 pars 269 and 270.

<sup>23</sup> Fishery Committee for the Eastern Central Atlantic Fisheries Management in the CECAF Region *Status of the elaboration and implementation of fisheries management plans and uptake of CECAF management recommendations by members* (CECAF/XXI/2016/4) 23. See also the description of the West African States' monitoring, control and surveillance capacities in INTERPOL *Study on Fisheries Crime in the West African Coastal Region* (2014) 40.

<sup>24</sup> D Warner Kramer 'Control begins at home: Tackling flags of convenience and IUU fishing' (2004) 34 *Golden Gate University Law Review* 507.

<sup>25</sup> T Treves 'Article 292: Prompt release of vessels and crews' in Proelss LOSC Commentary op cit note 18 at 1881–1892; and S Trevisanut 'Twenty years of prompt release of vessels: Admissibility, jurisdiction, and recent trends' (2017) 48(3–4) *Ocean Development & International Law* 300.

<sup>26</sup> Article 61(2) of the LOSC.

<sup>27</sup> Articles 61(1) and 62(2) of the LOSC.

State can itself determine whether there is such surplus, it will in practice not be obliged to give such access to other States.<sup>28</sup>

Various States have given access to other States as well as private parties to fish in their EEZs through so-called access agreements, in exchange for payment or other compensation.<sup>29</sup> This enables States that grant such access to generate income from the resources in their EEZs. However, it is not always clear whether the relevant coastal State has complied with its obligations under the LOSC to determine the allowable catch in its EEZ.<sup>30</sup> If it has failed to do so but nonetheless gives access to its EEZ for harvesting its resources, this could result in over-exploitation of such resources with a potentially devastating impact on the marine environment.

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<sup>28</sup> Harrison & Morgera op cit note 19 at par 14; J Mahinga *La pêche maritime et le droit international* (2014) 67; and Forteau & Thouvenin op cit note 18 at 716.

<sup>29</sup> See for example the Sustainable Fisheries Partnership Agreements that the EU has concluded with various States; listed in [https://oceans-and-fisheries.ec.europa.eu/fisheries/international-agreements/sustainable-fisheries-partnership-agreements-sfpas\\_en](https://oceans-and-fisheries.ec.europa.eu/fisheries/international-agreements/sustainable-fisheries-partnership-agreements-sfpas_en) (accessed 31 October 2025); D Belhabib et al 'Euros vs. Yuan: Comparing European and Chinese Fishing Access in West Africa' 2015 10(3) *PLoS ONE* 1; and J M Sobrino Heredia & G E Oanta 'The Sustainable Fisheries Partnership Agreements of the European Union and the Objectives of the Common Fisheries Policy: Fisheries and/or Development?' (2015) 19 *Spanish Yearbook of International Law* 64. See also P Failler 'Consultancy to conduct a review of previous and current fisheries agreements concluded by some African Union Member States' (2014) 17 available at [http://repository.au-ibar.org/bitstream/handle/123456789/1321/gi\\_20160524\\_au-ibar\\_faa\\_west\\_africa\\_fr.pdf?sequence=1&isAllowed=y](http://repository.au-ibar.org/bitstream/handle/123456789/1321/gi_20160524_au-ibar_faa_west_africa_fr.pdf?sequence=1&isAllowed=y) (accessed 31 October 2025).

<sup>30</sup> See M Rosello 'Illegal, unreported and unregulated fishing control in the exclusive economic zone: A brief appraisal of regulatory deficits and accountability strategies' (2016) XXII (75) *Croatian International Relations Review* 39–68 at 47; A Standing 'Criminality in Africa's Fishing Industry' (2017) 6 available at <https://africacenter.org/wp-content/uploads/2017/06/ASB33EN-Criminality-in-Africas-Fishing-Industry-A-Threat-to-Human-Security.pdf> (accessed 31 October 2025); Fishery Committee for the Eastern Central Atlantic 'Fisheries Management in the CECAF Region Status of the elaboration and implementation of fisheries management plans and uptake of CECAF management recommendations by members' (CECAF/XXI/2016/4) 7 available at <https://www.fao.org/fishery/docs/DOCUMENT/cecaf/cecaf21/4e.pdf>, (accessed 31 October 2025); G Carneiro 'They come, they fish, and they go: EC Fisheries Agreements with Cape Verde and São Tomé e Príncipe' 2011 (7)1 *Marine Fisheries Review* 1–25 at 15.

### III IUU ADVISORY OPINION

#### (a) ITLOS's views

In the aforementioned IUU Advisory Opinion<sup>31</sup>, ITLOS expressed its views on various questions raised by the SRFC relating to the responsibility of States for IUU fishing by vessels flying its flag in the EEZ of another State.<sup>32</sup> Regarding its legal status, the IUU Advisory Opinion can be considered an authoritative interpretation of the relevant provisions of UNCLOS. However, it is recognised that an advisory opinion entails authoritative statements that contribute to clarification of the applicable law and, in so doing, help to prevent disputes. Likewise, the legal findings in an advisory opinion are generally authoritative for members of a legal system and even foster judicial cross-fertilisation among courts and tribunals.<sup>33</sup> Since its publication, the IUU Advisory Opinion has been cited regularly in legal literature discussing flag State obligations concerning IUU fishing<sup>34</sup> and in case law of international tribunals.<sup>35</sup> This suggests that the views expressed in the IUU Advisory Opinion are generally considered to be authoritative.

ITLOS concluded that it follows from Articles 58(3), 62(4), and 192 of the LOSC that flag States have a responsibility to ensure that their vessels and nationals do not engage in IUU fishing in another State's EEZ.<sup>36</sup> It held that: 'Pursuant to

<sup>31</sup> See note 8.

<sup>32</sup> IUU Advisory Opinion, par 76.

<sup>33</sup> C Carillo 'The Advisory Jurisdiction of the ITLOS: From Uncertainties to Opportunities for Ocean Governance' in F M Platjouw & A Pozdnakova (eds) *The Environmental Rule of Law for Oceans: Designing Legal Solutions* (2023) 236–251 at 238; R Roland Holst 'Taking the current when it serves: Prospects and challenges for an ITLOS advisory opinion on oceans and climate change' (2022) 32(2) *Review of European, Comparative and International Environmental Law* 217–225 at 224; and T Ruys & A Soete 'Creeping Advisory Jurisdiction of International Courts and Tribunals? The case of the International Tribunal for the Law of the Sea' (2016) 29 *Leiden Journal of International Law* 155–176 at 169.

<sup>34</sup> R Churchill, V Lowe & A Sander *The Law of the Sea* 4 ed (2022) 549.

<sup>35</sup> See for example *South China Sea Arbitration, Philippines v China*, Award PCA Case No 2013–19, 2016 ICGJ 495 pars 744 and 944; and the ICJ, *Case concerning Alleged Violations of Sovereign Rights and Maritime Spaces in the Caribbean Sea* (Nicaragua v Colombia) (Judgment) (2022) par 95.

<sup>36</sup> IUU Advisory Opinion pars 111, 120, 124, 136 and 216.

Articles 192 and 193 of the Convention, the flag State has the obligation to take the necessary measures to ensure that vessels flying its flag comply with the protection and preservation measures adopted by the SRFC Member States<sup>37</sup> and further considered that:

While the nature of the laws, regulations and measures that are to be adopted by the flag State is left to be determined by each flag State in accordance with its legal system, the flag State nevertheless has the obligation to include in them enforcement mechanisms to monitor and secure compliance with these laws and regulations. Sanctions applicable to involvement in IUU fishing activities must be sufficient to deter violations and to deprive offenders of the benefits accruing from their IUU fishing activities.<sup>38</sup>

With regard to the flag State's obligation to prevent IUU fishing by vessels flying its flag, ITLOS explained that this is an obligation of conduct and that the flag State must deploy adequate means to exercise the best possible efforts to do the utmost to prevent IUU fishing by vessels flying its flag.<sup>39</sup> As an obligation of conduct, this is a due diligence obligation, not an obligation of result,<sup>40</sup> and it therefore follows that a flag State cannot under all circumstances be held liable if fishing vessels flying its flag engage in IUU fishing. However, it must take all necessary measures to ensure compliance and prevent IUU fishing by fishing vessels flying its flag in the relevant EEZ.<sup>41</sup>

ITLOS also noted that according to Article 94(1) of the LOSC, a flag State must adopt the necessary administrative measures to ensure that vessels flying its flag are not involved in activities that will undermine the State's responsibilities that follow

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<sup>37</sup> Ibid par 136.

<sup>38</sup> Ibid par 138.

<sup>39</sup> Ibid, par 129.

<sup>40</sup> Ibid par 125. An obligation of result would require a State to guarantee that the result of an action (or omission thereof) has a predefined result. If the result does not materialise, the State will be considered to have breached its obligation and could be held liable for such breach. An obligation of conduct obliges a State to take all necessary actions to ensure a certain result. However, it will not be in breach of its obligation if, in spite of all best possible efforts made by it (for example, for reasons that are beyond its control), the result does not materialise.

<sup>41</sup> Ibid par 129.

from the LOSC regarding the conservation and management of marine living resources.<sup>42</sup> If such violations occur and are reported by other States, the flag State must investigate and, if appropriate, take the necessary action to remedy the situation.<sup>43</sup> Additionally, ITLOS clarified that the obligation in Article 192 of the LOSC to protect and preserve the marine environment applies to all States, and therefore not just to flag or coastal States.<sup>44</sup>

### **(b) Impact of IUU Advisory Opinion**

Although the IUU Advisory Opinion was considered a significant step in the fight against IUU fishing, its practical impact may be quite limited, given that a flag State may not be in a position to effectively challenge the persons responsible for IUU fishing, as described in more detail below. According to ITLOS, the determination of the criteria and establishment of the procedures for granting and withdrawing nationality to vessels are matters within the exclusive jurisdiction of the flag State.<sup>45</sup> For example, some flag States are willing to register vessels that are owned or operated by persons or entities without them having a presence in the flag State concerned.<sup>46</sup> According to Article 94(1) of the LOSC, a flag State must effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag.

However, in practice, this may be difficult to achieve if the owner or operator of the vessel (including its beneficial owner) is not located or has no assets of substance in the flag State. In such circumstances, the latter may not be in a position to

<sup>42</sup> Ibid par 119. See also V Schatz 'Combating illegal fishing in the Exclusive Economic Zone – flag state obligations in the context of the primary responsibility in the coastal state' (2016) 7(2) *Goettingen Journal of International Law* 383–414 at 396.

<sup>43</sup> IUU Advisory Opinion par 119.

<sup>44</sup> Ibid par 120.

<sup>45</sup> See *M/V 'Saiga' (No. 2)* op cit note 22 at pars 63–65 and 83. See also T Treves 'Flags of convenience before the Law of the Sea Tribunal' (2004) 6(1) *San Diego International Law Journal* 179–189 at 186; and Churchill, Lowe & Sander, op cit note 34 at 469.

<sup>46</sup> See for example, M Hand 'Hong Kong, Liberia, Panama and Marshall Islands flag – a comparative analysis' *Seatrade Maritime* (5 January 2017) available at <https://www.seatrade-maritime.com/americas/hong-kong-liberia-panama-and-marshall-islands-flag-comparative-analysis> (accessed 31 October 2025).

exercise adequate control over the vessel and effectively sanction breaches of its or another State's regulations. Although a State can, under international law, regulate the conduct of persons if there is a link between such conduct and the regulating State,<sup>47</sup> it can in principle only take enforcement measures on the basis of such regulations in the territory of another State if the latter State so permits.<sup>48</sup> This follows from the judgment of the Permanent Court of International Justice (PCIJ) in the *SS 'Lotus'* case.<sup>49</sup> With regard to enforcement jurisdiction, the PCIJ noted that:

The first and foremost restriction imposed by international law upon a state is that – failing the existence of a permissive rule to the contrary – it may not exercise its power in any form in the territory of another State. In this sense, jurisdiction is certainly territorial; it cannot be exercised by a State outside its territory except by virtue of a permissive rule derived from international custom or convention.<sup>50</sup>

The above rule is still broadly accepted and therefore, if sanctions imposed by a flag State need to be enforced abroad because the offenders are not located within its territory, it will need the co-operation of the State in which such persons or their assets are located. It is uncertain whether such co-operation will be forthcoming, in particular if the other State does not consider a breach of fisheries regulations as a serious offence that warrants the time and costs that may be involved in providing assistance.

Also, the prohibition set out in Article 73(2) of the LOSC on prison sentences for IUU fishing offences may impact the ability of a coastal State to use international cooperation agreements

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<sup>47</sup> K Ipsen *Völkerrecht* 6 ed (2014) 90; S Vezzani *Jurisdiction in International Fisheries Law: Evolving trends and new challenges* (2020) 121; and J Dugard et al *Dugard's International Law – A South African perspective* 5 ed (2018) 213.

<sup>48</sup> S Beaulac 'The Lotus case in context: Sovereignty, Westphalia, Vattel and positivism' in S Allen et al (eds) *The Oxford Handbook of Jurisdiction in International Law* 40–58 at 51; Ipsen op cit note 47 at 89; and Dugard et al op cit note 47 at 214.

<sup>49</sup> *The case of the SS 'Lotus' (France v Turkey)*, Judgement of 7 September 1927, Ser. A, No 10 1. See also S Beaulac op cit note 48 at 49; and Dugard et al op cit note 47 at 212.

<sup>50</sup> *The case of the SS 'Lotus' (France v Turkey)* at 18–19.

for the enforcement of its fisheries regulations, such as the United Nations Convention against Transnational Organised Crime (UNTOC),<sup>51</sup> since the obligation to cooperate under these agreements may depend on the severity of the sanctions that can be imposed.<sup>52</sup> Moreover, vessels engaged in IUU fishing operations may regularly change flag State, operator and legal owner, making it more difficult for coastal and flag States to enforce their regulations effectively.<sup>53</sup>

Another complication is that ITLOS refers in the IUU Advisory Opinion to compliance with, and violations of a State's fisheries regulation by vessels. However, this is not how, in practice, the activities of vessels are regulated.<sup>54</sup> The vessel is a tool that persons use and the vessel itself does not have rights or obligations. Fisheries regulations typically address the conduct of persons, such as the owner, operator or crew of the vessel, who may not be resident in the flag State. It is therefore not the vessel itself, but the persons connected with the vessel who have an obligation to comply with the coastal State's fisheries regulations. For example, under the fisheries regulations of various African coastal States the vessel owner can be held responsible for breaches of its fisheries regulations while others also hold the vessel operator responsible.<sup>55</sup>

<sup>51</sup> 2000 United Nations Convention against Transnational Organised Crime [40 *ILM* 333].

<sup>52</sup> For example, UNTOC makes assistance dependent on the seriousness of the crime for which assistance is requested and defines serious crime in its Article 2(b) as 'conduct constituting an offence punishable by a maximum deprivation of liberty of at least four years or a more serious penalty'. See also E de Coning & E Witbooi 'Towards a new 'fisheries crime' paradigm: South Africa as an illustrative example' (2015) 60 *Marine Policy* 208–215 note 2.

<sup>53</sup> Environmental Justice Foundation 'Out of the shadows. Improving transparency in global fisheries to stop illegal, unreported and unregulated fishing' (2018) 17 available at <https://ejfoundation.org/resources/downloads/Transparency-report-final.pdf> (accessed 31 October 2025).

<sup>54</sup> See for example IUU Advisory Opinion pars. 146, 152 and 155.

<sup>55</sup> See for example Cabo Verde: Article 126(1) and 127 of the Decreto-Legislativo n°2/2020 de 19 de março; Gabon: Article 104 Code des pêches et de l'aquaculture – Loi n°015/2005; Gambia: Article of the 99 Fisheries Act, 2007; Ghana: Article 65 of the Fisheries Act, 2002; Guinea Bissau, Article 62 of the Decreto-Lei n.º 10/2011 de 7 de Junho; Liberia: Section 13.10 of the National Fisheries and Aquaculture Authority Law 2019; Mauritania: Article 82 of the Loi n°2015-17 du 29 juillet 2015 portant Code des pêches maritimes; Mauritius: Article

Considering the above situation in the context of a flag State's due diligence obligations, it can be concluded that even if a flag State provides in its regulations that vessels flying its flag should not engage in IUU fishing, it will face difficulties if the persons who can be held responsible for a breach of these regulations are located abroad or have insufficient assets in the flag State to cover monetary penalties. The due diligence obligations could be interpreted to imply that in that situation the flag State should have measures in place, such as agreements with States where the alleged offenders are located, to enforce its regulations. However, they may not go that far and a flag State may not have violated its due diligence obligations if it is unable to enforce its regulations outside its borders due to a lack of cooperation of other States.

### III RESPONSIBILITY OF VESSEL OWNER STATES?

#### (a) Introduction

An alternative approach to challenging IUU fishing is to hold the vessel beneficial owners liable for breaches of a coastal or flag State's regulations. These persons may be the masterminds behind the IUU fishing operations and the beneficiaries of the income they generate. Therefore, sanctioning the beneficial owners of vessels engaged in IUU fishing could be an effective additional tool in combating IUU fishing, especially considering that, while the vessel's flag State and legal owner may be easy to change, the beneficial owner of a vessel is more likely to remain the same.

Based on the sovereign rights granted by the LOSC to coastal States for regulating fisheries activities in their EEZs and the nexus between the vessel and its beneficial owner, they should have jurisdiction to include in their fisheries regulations' rules applicable to owners, operators, and beneficial owners of vessels, making them liable for the monetary sanctions that a coastal State may impose for breaches of its regulations.<sup>56</sup>

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178 of the Fisheries Act 2023; Senegal: Article 122 Loi n° 2015-18 du 13 juillet 2015 portant Code de la Pêche maritime; and Sierra Leone: Article 77 Fisheries and Aquaculture Act, 2018.

<sup>56</sup> A legal basis for this view can for example be found in Article 62(4) of the LOSC that sets out, on a non-enumerative basis, the types of fisheries regulations that a coastal State can adopt. Various suggested regulations appear to be addressed to persons that are involved in the

Flag States have this possibility as well and can derive this authority from their ability to set the rules that apply to granting the flag State's nationality to the vessel. It could even be argued that, also considering the IUU Advisory Opinion, they have an obligation to do so on the basis of Article 94 of the LOSC that requires them to effectively exercise their jurisdiction and control in administrative, technical and social matters over vessels flying their flag and their obligation to ensure that such vessels do not engage in IUU fishing activities in the EEZ of another State.<sup>57</sup> The importance of identifying the beneficial owners of vessels as a means to more effectively combat against IUU fishing is widely recognised and various initiatives have been developed to promote the disclosure of a vessel's beneficial owner.<sup>58</sup> The identification is further supported by global developments in other areas, such as taxation and anti-money laundering regulations, that require the disclosure of beneficial owners of corporate entities.<sup>59</sup>

Although coastal and flag States could extend their regulations to vessel owners and prescribe that they can be held liable for breaches of its regulations as a result of the vessel's fishing activities, they would still face the same difficulties in the enforcement of their regulations as described above if the beneficial owner of the vessel is located abroad, and therefore require the co-operation of the State in which such beneficial owner is located. However, there are strong arguments why, in addition to coastal and flag States, vessel owner States also have a role to fulfil in combating IUU fishing. In particular where the vessel owner State has a developed and efficient system of law enforcement, and a civil society that is concerned with the impact of IUU fishing, it could have a meaningful

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organisation of the fishing activities rather than the persons engaged in the fishing operations themselves.

<sup>57</sup> IUU Advisory Opinion pars 116–119.

<sup>58</sup> Environmental Justice Foundation op cit note 53 at 17; Fishing Transparency Initiative; Fishing in the dark: Transparency of beneficial ownership' (undated) available at [https://www.fiti.global/wp-content/uploads/2020/09/FiTl\\_tBrief03\\_BO\\_EN.pdf](https://www.fiti.global/wp-content/uploads/2020/09/FiTl_tBrief03_BO_EN.pdf) (accessed 31 October 2025); and The Pew Charitable Trusts 'Ownership of Fishing companies, vessels need greater transparency and accountability' (2023) available at <https://www.pewtrusts.org/-/media/assets/2023/10/ownership-of-fishing-companies-vessels-need-greater-transparency-and-accountability.pdf> (accessed 31 October 2025).

<sup>59</sup> See also Kiepe & Low op cit note 13.

role in this respect. These arguments are based on, among others, the no harm or prevention principle that forms part of customary international law, the IUU Advisory Opinion, the views expressed in the *South China Sea Arbitration*, the IPOA IUU, United Nations General Assembly resolutions and State practice, as will be discussed in more detail below.

### (b) No harm principle

According to the no harm principle, States must not allow their territory to be used for activities that prejudice the interests of other States. This principle follows from customary rules of international law.<sup>60</sup> Several landmark cases deal with activities within a State's territory, or by a national of a State that are harmful to the interests of another State. The relevant cases are the *Trail Smelter case*,<sup>61</sup> the *Corfu Channel case*<sup>62</sup> and, more recently, the *Pulp Mills case*<sup>63</sup> and the *Construction of a Road case*.<sup>64</sup> These decisions confirm the rule of customary international law that a State may not knowingly allow its territory to be used in a way that is harmful to the rights of another State. This rule applies not only to a State's own activities but also to wrongful acts committed by non-state actors within its territory and, by analogy, to the activities of non-state actors under its jurisdictional control, such as those onboard a vessel flying its flag. To establish State responsibility in this situation, such wrongful acts must relate to acts or omissions of a State and result from a failure to exercise due diligence. It has become a rule of customary international environmental law<sup>65</sup>

<sup>60</sup> See also Churchill, Lowe & Sander op cit note 34 at 609.

<sup>61</sup> *Trail Smelter Case (United States of America v. Canada)* Reports of International Arbitral Awards 16 April 1938 and 11 March 1941 Volume III 1905 at 1966.

<sup>62</sup> *The Corfu Channel Case (United Kingdom v. Albania)* 1949 ICJ Reports 4 at 22.

<sup>63</sup> *Pulp Mills on the River Uruguay (Argentina v. Uruguay)* 2010 ICJ Reports 14 at 45.

<sup>64</sup> *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua)* and *Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica)* 2015 ICJ Reports 665 at 706.

<sup>65</sup> See K Leigh 'Liability for damage to the global commons' (1992) 14 *Australian Year Book of International Law* 129–156 at 142; M Banda 'Regime Congruence: Rethinking the scope of state responsibility for transboundary environmental harm' (2019) 103(4) *Minnesota Law Review* 1879–1959; M S Blodgett, R J Hunter Jr & H R Lozada 'Primer

and, more recently, is also considered applicable in the context of cross-border cybercrime.<sup>66</sup>

The standard of due diligence is that which is generally considered to be appropriate and proportional to the risk of transboundary harm in the particular instance.<sup>67</sup> A State is not required to guarantee the complete prevention of significant harm if doing so is not possible.<sup>68</sup> This due diligence obligation is therefore similar to that expressed by ITLOS in the IUU Advisory Opinion regarding the role of flag States in combating IUU fishing.<sup>69</sup> This is not surprising since the considerations of ITLOS appear to be based on the above-described case law. A State allowing a person to prepare and organise IUU fishing activities in the EEZ of another State or, if such activities occur, failing to take measures against such person, could be considered as acting in breach of this principle.

### (c) IUU Advisory Opinion and South China Sea Arbitration

New Zealand and WWF raised in their submissions to ITLOS, in connection with the IUU Advisory Opinion, the need to extend the obligation to act against IUU fishing to those States whose nationals are involved in such activities.<sup>70</sup> ITLOS did not include these submissions or comment on them as part of its deliberations, other than expressing the view that:

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on international environmental law: Sustainability as a principle of international law and custom' (2008) 15(1) *ILSA Journal of International & Comparative Law* 15–31 at 21; and D Shelton & A Kiss 'Strict Liability in International Environmental Law' in T Ndiaye & R Wolfrum (eds) *Law of the Sea, Environmental Law and Settlement of Disputes: Liber Amicorum Judge Thomas A. Mensah* (2007) 1131–1151.

<sup>66</sup> See T Payne 'Teaching old law new tricks: Applying and adapting state responsibility to cyber operations' (2016) 20(2) *Lewis & Clark Law Review* 683–715 at 691.

<sup>67</sup> D French & T Stephens 'First Report, ILA Study Group on Due Diligence in International Law' (7 March 2014) at 5 available at [https://www.ila-hq.org/en\\_GB/documents/first-report-washington-dc-2014](https://www.ila-hq.org/en_GB/documents/first-report-washington-dc-2014) (accessed 31 October 2025).

<sup>68</sup> See also International Law Commission 'Draft articles on Prevention of Transboundary Harm from Hazardous Activities, with commentaries' (2001) II (2) *Yearbook of the International Law Commission* 154.

<sup>69</sup> IUU Advisory Opinion par 129.

<sup>70</sup> See Submission of New Zealand to ITLOS of 27 November 2013 *ITLOS case no. 21* Written Proceedings 172; WWF International 'Further Amicus Curiae brief dated 14 March 2014' *ITLOS case no. 21* Written Proceedings 1663.

The issue of liability in respect of vessels that are owned or operated by a national of a member State of an international organisation and which are flying the flag of a State that is not a member of that international organisation is beyond the scope of the questions submitted to it by the SRFC.<sup>71</sup>

However, there are strong grounds for supporting the view that the vessel owner State's responsibility can be based on the rules set out in the LOSC. Some of its provisions apply to all States, others to States in a particular capacity, such as a flag State or coastal State. In order to determine to what extent the LOSC also imposes obligations on States in which beneficial owners of vessels are located, the interpretation of Articles 58(3), 62(4) 192 and 194(5) of the LOSC in the context of the ITLOS Advisory Opinion and the award in the *South China Sea Arbitration*, discussed in more detail below is relevant.

It is clear from the IUU Advisory Opinion that a coastal State can hold a flag State liable if it fails to meet its due diligence obligation concerning vessels flying its flag. However, it is not clear whether ITLOS intended to make this liability exclusive in the sense that the coastal State may only seek recourse against a flag State for breaches of its fisheries regulations by the flag State's vessel and its connected persons. If there is no such exclusivity, and assuming that the LOSC and other rules of international law provide a legal basis, a coastal State could also hold the State whose nationals have engaged in IUU fishing in its EEZ liable if that State has failed to comply with its international legal obligations towards the coastal State.

There are several reasons why the responsibility of the flag State cannot be considered exclusive. Various provisions in the LOSC refer to flag States where it is clear that it is intended only to refer to the flag State of a vessel.<sup>72</sup> Conversely, where the LOSC uses the term States, it appears to refer to States generally, and therefore not to States with a particular role, such as flag States or coastal States. Articles 58(3), 62(4), and 192 of the LOSC do not mention flag States but refer to States generally. It can be argued that if these provisions were intended to apply only to flag States, the term flag States should have been used in these provisions.

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<sup>71</sup> IUU Advisory Opinion par 166.

<sup>72</sup> See for examples Articles 31, 42(5), 73(3), 94, 97(1), 97(3) and 217 of the LOSC.

For example, the term States used in Article 58(3) of the LOSC appears to refer back to ‘all States, whether coastal or land-locked’ in paragraph 1 of the same Article. States in Article 62(4) of the LOSC should be read in the context of the other paragraphs of Article 62, suggesting that the term may also include landlocked States or geographically disadvantaged States.<sup>73</sup> The latter States may not have a fishing fleet themselves, which means that fishing vessels flagged to other States do the actual fishing on their behalf in the coastal State’s EEZ. ITLOS held in the IUU Advisory Opinion that Article 192 of the LOSC imposes an obligation on all parties to the LOSC, and is therefore not confined to States with particular roles, and that it applied to all maritime zones, therefore including the EEZ.<sup>74</sup> This suggests that, when considering the text of these provisions, there is no reason to limit their scope to flag States only.

Considering the list of possible regulations that a coastal State can impose according to Article 62(4) of the LOSC, some of the addressees of these regulations will not be nationals of a vessel’s flag State. Since the LOSC cannot impose direct obligations on nationals of States, ITLOS has interpreted Article 62(4) of the LOSC to reflect that States should ensure that their nationals fishing in the EEZ comply with the coastal State’s regulations.<sup>75</sup> Holding the flag State solely responsible for the activities of such other nationals may be overly burdensome, in particular since the flag State may not be able to exercise prescriptive or enforcement jurisdiction over such persons.<sup>76</sup> If the liability of

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<sup>73</sup> The LOSC does not include a definition of States.

<sup>74</sup> IUU Advisory Opinion par 120.

<sup>75</sup> Ibid par 123. See A Honniball ‘Engaging Asian states on combating IUU fishing: The curious case of the state of nationality in EU regulation and practice (2021) 10(3) *Transnational Environmental Law* 543–569 at 560, regarding the question whether ‘nationals’ in Articles 62(4), 117 and 118 LOSC by the EU Commission refers to the governance of both nationals and vessels. The EU Commission apparently takes the view in relation to Article 62(4) LOSC that it also includes nationals. Interestingly, the arbitral tribunal in the South China Sea Arbitration suggests that Article 64(2) LOSC imposes an obligation on nationals. See *South China Sea Arbitration* par 739.

<sup>76</sup> Although this approach has been suggested by the EU Commission in Commission Decision of 15 November 2012 on notifying the third countries that the Commission considers as possibly being identified as non-cooperating third countries in accordance with Council Regulation (EC) No 1005/2008 of 29 September 2008 establishing a

the flag State is not exclusive, then the coastal State could also bring claims concerning IUU fishing in its EEZ against other States.

To determine which nationals the provision is intended to capture, the interpretation of the term ‘fishing’ in Article 62(4) of the LOSC is relevant. In the *M/V ‘Virginia G’* case, ITLOS held that fishing is not limited to the actual fishing operations<sup>77</sup> but can also involve other fisheries-related activities, such as the activities described in Article 1(d) of the Agreement on Port State Measures,<sup>78</sup> which defines fishing related activities as ‘any operation in support of, or in preparation for, fishing, including the landing, packaging, processing, transshipping or transporting of fish that have not been previously landed at a port, as well as the provisioning of personnel, fuel, gear and other supplies at sea’.

If fishing in an EEZ is understood to include fisheries related activities as defined in Article 1(d) of the PSMA, then the scope of States with obligations to ensure that their nationals comply with the coastal State’s regulations would be much broader than just the flag State of the vessel and would include other States whose nationals are involved in activities that prepare or support fishing operations. This should include vessel owner States.

A further argument for considering the reference to nationals in Article 62(4) of the LOSC, in combination with Article 58(3) of the LOSC, to extend beyond nationals of the flag State can be found in Article 117 of the LOSC. Although applying to the high seas only, it is another provision of the LOSC where a reference to nationals is included. It provides that States must take measures or co-operate with other States in taking measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas.<sup>79</sup> It has been suggested that the term nationals should also include

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Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing (2012/C 354/01), par 234.

<sup>77</sup> *M/V ‘Virginia G’* case pars 215 and 216.

<sup>78</sup> 2009 Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (PSMA) [55 *ILM* 1157]. See E Witbooi ‘Illegal, Unreported and Unregulated Fishing on the High Seas: The Port State Measures Agreement in Context’ (2014) 29(2) *IJMCL* 290–320.

<sup>79</sup> See A Honniball & V Schatz “‘Nationals’” at forty: From an undefined UNCLOS term to due diligence obligations on the state of nationality

those individuals and entities that operate behind the scenes of fishing operations and that these should be identified by, for example, piercing the corporate veil of companies.<sup>80</sup>

Article 192 of the LOSC was also considered by the arbitral tribunal in the *South China Sea Arbitration*. It considered with respect to Article 192 of the LOSC that:

Article 192 of the Convention provides that ‘States have the obligation to protect and preserve the marine environment.’ Although phrased in general terms, the Tribunal considers it well established that Article 192 does impose a duty on States Parties, the content of which is informed by the other provisions of Part XII and other applicable rules of international law. This ‘general obligation’ extends both to ‘protection’ of the marine environment from future damage and ‘preservation’ in the sense of maintaining or improving its present condition. Article 192 thus entails the positive obligation to take active measures to protect and preserve the marine environment, and by logical implication, entails the negative obligation not to degrade the marine environment. The corpus of international law relating to the environment, which informs the content of the general obligation in Article 192, requires that States ‘ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control.’ Thus, States have a positive ‘duty to prevent, or at least mitigate’ significant harm to the environment when pursuing large-scale construction activities.’ The Tribunal considers this duty informs the scope of the general obligation in Article 192.<sup>81</sup>

The arbitral tribunal emphasised that Article 192 of the LOSC not only applies to activities directly taken by States and their organs but also requires States to ensure that activities within their jurisdiction and control do not harm the marine

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to combat IUU fishing’ (2023) 100 *International Law Studies Series*. US Naval War College 229–265 at 242.

<sup>80</sup> See R Rayfuse ‘Article 117: Duty of states to adopt with respect to their nationals, measures for the conservation of living resources of the high seas’ in Proelss LOSC Commentary op cit note 18 803–817 at par 35; Palma, Tsamenyi & Edeson op cit note 16 at 102; and Honniball op cit note 76 at 566.

<sup>81</sup> *South China Sea Arbitration* par 941.

environment.<sup>82</sup> The arbitral tribunal also made reference to Article 194(5) of the LOSC, which was not mentioned in the IUU Advisory Opinion, in its conclusion that: ‘China has, through its toleration and protection of and failure to prevent Chinese fishing vessels engaging in harmful harvesting activities of endangered species, breached Articles 192 and 194(5) of the Convention.’<sup>83</sup>

#### (d) Supporting international legal sources

There are other international legal sources that suggest that there is an obligation for States whose nationals are involved in IUU fishing as beneficial owners of vessels to take measures. One such source is the IPOA IUU,<sup>84</sup> that, among other things, provides in its paragraph 18 that:

In the light of relevant provisions of [the LOSC], and without prejudice to the primary responsibility of the flag State on the high seas, each State should, to the greatest extent possible, take measures or cooperate to ensure that nationals subject to their jurisdiction do not support or engage in IUU fishing. All States should cooperate to identify those nationals who are the operators or beneficial owners of vessels involved in IUU fishing.

The IPOA IUU is a non-binding instrument. However, its provisions are considered to reflect the scope and content of the regulations that States should adopt to comply with the international legal obligations under the LOSC and related fisheries treaties.<sup>85</sup> For example, in order to determine whether a non-EU Member State can be considered to be non-cooperating under the EU IUU Regulation<sup>86</sup> the European

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<sup>82</sup> Ibid at par 944.

<sup>83</sup> Ibid at par 992.

<sup>84</sup> Op cit note 16.

<sup>85</sup> D Sodik ‘Non-legally binding international fisheries instruments and measures to combat illegal, unreported and unregulated fishing’ (2008) 15(1) *Australian International Law Journal* 129–164 at 131; and Palma, Tsamenyi & Edeson op cit note 16 at 19. See also R Roland Holst *Change in the Law of the Sea. Context, Mechanisms and Practice* (2022) 242.

<sup>86</sup> Council Regulation (EC) No 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing, amending Regulations (EEC) No 2847/93, (EC) No 1936/2001 and (EC) No 601/2004 and repealing Regulations (EC) No

Union assesses the relevant State's compliance with the rules of the IPOA IUU.<sup>87</sup> As will be discussed below, several States have adopted various principles set out in the IPOA IUU in national legislation. Another supporting source is the PSMA whose preamble provides that:

Recognizing that measures to combat illegal, unreported and unregulated fishing should build on the primary responsibility of flag States and use all available jurisdiction in accordance with international law, including port State measures, coastal State measures, market related measures and measures to ensure that nationals do not support or engage in illegal, unreported and unregulated fishing.

Although the PSMA focuses on port States, its preamble recognises that a port State is one of several States that can exercise jurisdiction in connection with IUU fishing.<sup>88</sup> It provides that all available jurisdiction under international law should be used to combat IUU fishing, including measures to ensure that a State's nationals do not support or engage in IUU fishing. This reflects the principle that States are responsible for taking action against nationals engaged in or supporting IUU fishing. Considering that the relevant language is included in the aforementioned preamble and is not part of the provisions of the PSMA itself, it may go too far to suggest that by becoming a party to the PSMA, a State automatically accepts that States are obliged to ensure that their nationals are not involved in IUU fishing. However, the preamble at least indicates recognition that States cannot allow their nationals to engage in IUU fishing without holding them to account. Moreover, the UN General Assembly adopts annually and without vote a resolution that among others provides that it:

Urges States to effectively exercise jurisdiction and control over their nationals, including beneficial owners, and vessels flying their flag, in order to prevent and deter

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1093/94 and (EC) No 1447/1999, OJ 2008 No L 286, 29 October 2008 (EU IUU Regulation).

<sup>87</sup> See for example Commission Decision of 23 May 2017 notifying the Republic of Liberia of the possibility of being identified as a non-cooperating third country in fighting illegal, unreported and unregulated fishing (2017/C 169/12) recitals 19, 25, 29 and 31.

<sup>88</sup> Honniball & Schatz, *op cit* note 79 at 246.

them from engaging in illegal, unreported and unregulated fishing activities or supporting vessels engaging in illegal, unreported and unregulated fishing activities, including those vessels listed by regional fisheries management organizations or arrangements as engaged in those activities, and to facilitate mutual assistance to ensure that such actions can be investigated and proper sanctions imposed.<sup>89</sup>

and,

Encourages States that have not yet done so to establish penalties for non-compliance by vessels involved in fishing or fishing related activities and their nationals, as appropriate, in accordance with applicable national law and consistent with international law, that are adequate in severity for effectively securing compliance, deterring further violations and depriving offenders of the benefits from their illegal, unreported and unregulated fishing activities.<sup>90</sup>

The resolutions are particularly relevant, as they make specific reference to the States of the nationality of beneficial owners and others who support or engage in IUU fishing and therefore include States that are not explicitly mentioned in UNCLOS or the IUU Advisory Opinion. The reference to depriving offenders of the benefits accruing from IUU fishing in the resolutions also suggests that the States whose nationals are involved in IUU fishing should not rely solely on the flag or coastal State to take action, and that they should take measures to ensure that their nationals cannot benefit from IUU fishing.

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<sup>89</sup> See for example the resolution adopted by the UNGA on 12 December 2024, Resolution A/79/L.38 par 95.

<sup>90</sup> Ibid at par 97.

The legal status of UN General Assembly resolutions depends on various factors.<sup>91</sup> Where the UN Charter<sup>92</sup> has granted particular decision-making powers to the General Assembly,<sup>93</sup> the binding nature of the resolutions is generally accepted.<sup>94</sup> The situation is different for resolutions adopted without such a legal basis. Legal commentators consider that in these circumstances their status and role as a source of international law depend on their wording, implicit and explicit intentions and the number of States supporting the resolutions.<sup>95</sup> In some cases, they are considered to confirm international law, although a generally held view is that they cannot create international law.<sup>96</sup>

Even if the relevant UNGA resolutions are not legally binding and do not reflect customary international law, they reflect that the international community supports the view that the fight against IUU fishing should not rest solely with flag or coastal States, but should involve all States whose nationals are involved in IUU fishing, including the beneficial owners of vessels and other persons who support IUU fishing. Moreover, it can be argued that their adoption without vote, combined with the fact that the principles set out in them are reflected in various international fisheries instruments and national fisheries regulations, makes them a relevant source for determining the responsibility of States whose nationals

<sup>91</sup> See S Schwebel 'The effect of resolutions of the U.N. General Assembly on customary international law' (1979) 73 *American Society of International Law Proceedings*, 301–309; J Higashi 'The role of resolutions of the United Nations General Assembly in the formative process of international customary law' (1982) 25 *Japanese Annual of International Law*, 11–25; and M Ellis 'The New International Economic Order and General Assembly Resolutions: The Debate over the Legal Effects of General Assembly Resolutions Revisited' (1985) 15(3) *California Western International Law Journal* 647–704. In the context of UNCLOS, see also Churchill, Lowe & Sander, op cit note 34 at 15.

<sup>92</sup> 1945 Charter of the United Nations [1 *UNTS* XVI].

<sup>93</sup> For example, pursuant to Arts 4, 16, 17, 22, 85, and 87 of the UN Charter.

<sup>94</sup> Schwebel op cit note 91 at 301.

<sup>95</sup> Ellis op cit note 91 at 680 and 693.

<sup>96</sup> Higashi op cit note 91 at 24 and Schwebel op cit note 91 at 302; A different view is expressed by Ellis op cit 91 at 684. See also Roland Holst op cit note 85 at 241, where the author discusses the role of UN General Assembly resolutions as a 'subsequent agreement' within the meaning of Article 31(3)(a) of the 1969 Vienna Convention on the Law of Treaties [1155 *UNTS* 331].

are beneficial owners of fishing vessels involved in IUU fishing or otherwise support or engage in such activities. Finally, in a regional context, the Fisheries Committee for the West Central Gulf of Guinea in its national plan of action for the purposes of the IPOA IUU expressed that:

[All] member states should include in their national legislation specific provisions to help control and monitor and to prosecute, when necessary, the nationals and (persons and vessels) operating in other zones beyond their jurisdictions if it turns out that these persons or vessels have committed illegal fishing acts including the use of flags of convenience.<sup>97</sup>

The above international legal sources indicate that not only flag and coastal States have obligations to act against IUU fishing, but the States of which the beneficial owners of vessels engaged in such activities have similar obligations.

#### **(e) State practice**

An important source for determining whether an international legal obligation exists is State practice,<sup>98</sup> and there are various examples that support vessel owner State responsibility. For example, the EU IUU Regulation<sup>99</sup> imposes an obligation on EU member States to ensure that their nationals do not support or engage in IUU fishing, including by engagement on board or as operators or beneficial owners of fishing vessels, and to take appropriate action regarding such nationals if they fail to do so.<sup>100</sup> As part of its international fisheries policy, the European Commission requires a commitment from non-member States that export fish to the EU to act against the beneficial owners of vessels that are engaged in IUU fishing and has threatened States that it believes do not comply with this obligation with

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<sup>97</sup> Fisheries Committee for the West Central Gulf of Guinea *Regional Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated (IUU) Fishing in the Fisheries Committee for the West Central Gulf of Guinea (FCWC) Member Countries* (2018) 15.

<sup>98</sup> See Article 38(1)(b) of the 1945 Statute of the International Court of Justice [33 *UNTS* 993].

<sup>99</sup> See note 86.

<sup>100</sup> Article 39(1) EU IUU Regulation.

trade sanctions.<sup>101</sup> It has, for example, done so in cases against Taiwan, South Korea and Belize.<sup>102</sup>

Various other States, such as Spain, Australia, New Zealand, Cabo Verde, and Mauritius, prohibit the involvement of their nationals in IUU fishing in the waters of other States.<sup>103</sup> The United States of America prohibits its nationals from involvement in the preparation and organisation of IUU fishing operations and other dealings with fish resulting from IUU fishing.<sup>104</sup> Mauritius has a similar prohibition.<sup>105</sup> Spain has applied its regulations to sanction the activities of the Spanish Vidal Armadores group and its affiliated persons. Vessels belonging to this group, but with a foreign flag state and legal owner, had regularly and for a long period been involved in IUU fishing operations. The Spanish authorities were able to show the link between the vessels involved and some of the Vidal companies and their beneficial ownership of the vessels concerned.<sup>106</sup>

<sup>101</sup> See also Honniball op cit note 76 at 549; and A Honniball 'What's in a duty? EU identification of non-cooperating port states and their prescriptive responses (2020) 35 *IJMCL* 19–54 at 23.

<sup>102</sup> Taiwan: Commission Decision of 1 October 2015 on notifying a third country of the possibility of being identified as a non-cooperating third country in fighting illegal, unreported and unregulated fishing (2015/C 324/10) par 51; South Korea: Commission Decision of 26 November 2013 on notifying the third countries that the Commission considers as possible of being identified as non-cooperating third countries pursuant to Council Regulation (EC) No 1005/2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing (2013/C 346/03) par 28; and Belize: Commission Decision of 15 November 2012 on notifying the third countries that the Commission considers as possible of being identified as non-cooperating third countries pursuant to Council Regulation (EC) No 1005/2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing (2012/C 354/01) pars 29, 81, 164, 240 and 300.

<sup>103</sup> Australia: Articles 105F and 105 FA of the Fisheries Management Act 1991; Cabo Verde: Article 108(1) of the Decreto-Legislativo n°2/2020 de 19 de março; Mauritius: Article 49(2) of the Fisheries Act 2023; New Zealand: Article 113(1) of the Fisheries Act 1996; and Spain: Article 101(k) of the Ley 3/2001, de 26 de marzo, de Pesca Marítima del Estado.

<sup>104</sup> Lacey Act: 16 U.S.C. §3372(a)(2)(A).

<sup>105</sup> Article 41 of the Fisheries Act 2023.

<sup>106</sup> N Noval 'The Spanish legal process for prosecuting illegal fishing: A story of success?' (2019) 9 available at <https://www.clientearth.org/media/cd0jqn3j/the-spanish-legal-process-for-prosecuting-illegal-fishing-a-story-of-success-ce-en.pdf> (accessed 31 October 2025).

Based on the above, it can be concluded that there are various arguments supporting an obligation on vessel beneficial owners to ensure that such owners do not breach a coastal or flag State's fishing regulations

#### IV VESSEL OWNER STATE RESPONSIBILITY: CONTENT AND APPLICATION

Based on the judgment of the International Court of Justice (ICJ) in the *Pulp Mills* case and the views expressed by ITLOS in the IUU Advisory Opinion, it would be logical to conclude that a vessel owner State has obligations that are broadly similar to those reflected in the IUU Advisory Opinion.<sup>107</sup> Transposing that to the obligations of a vessel owner State would mean that such State must, among other things:

- (a) Take necessary measures, including those of enforcement, to ensure compliance by vessels beneficially owned or operated by its nationals with laws and regulations enacted by coastal States concerning marine living resources within their EEZs for purposes of conservation and management of these resources;
- (b) take necessary measures to ensure that vessels beneficially owned or operated by its nationals are not engaged in IUU fishing within the EEZs of coastal States; and
- (c) co-operate with a coastal State in cases related to IUU fishing by vessels beneficially owned or operated by its nationals in the EEZ of the coastal State concerned.

ITLOS characterised the flag State's obligation as a due diligence obligation, i.e., an obligation of conduct but not an obligation of result and that a flag State must deploy adequate means to exercise the best possible efforts to do the utmost to prevent IUU fishing by vessels flying its flag.<sup>108</sup> If this obligation is transposed to a vessel owner State, it can be argued that, given a State's jurisdictional powers, the exercise of best possible efforts implies that it should adopt regulations to prevent IUU fishing by vessels that are beneficially owned by its nationals. A lack of financial or human resources, or other priorities, should not be used by a vessel owner State as a reason for delaying or foregoing the introduction of such regulations.

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<sup>107</sup> IUU Advisory Opinion at 63.

<sup>108</sup> Ibid at par 129.

In line with the views expressed by ITLOS in the IUU Advisory Opinion regarding flag States, the nature of the laws, regulations and measures that are to be adopted by the vessel owner State to comply with the obligations should be determined by that State in accordance with its legal traditions.<sup>109</sup> As regards the jurisdictional basis for the vessel owner State's regulations, there appear to be two logical options, namely the active personality principle<sup>110</sup> and the subjective territoriality principle.<sup>111</sup> Based on the active personality principle, a State could regulate the activities of its nationals that occur outside its territory. If the State regulates conduct that occurs within a State's borders, including activities that have an impact outside its borders, this is known as subjective territoriality. A vessel owner State's regulations could include rules based on a combination of the active personality and subjective territoriality principles.

If the vessel owner State applies the active personality principle, it can require that nationals who are beneficial owners of vessels that conduct fishing activities in the EEZ of another State should ensure compliance of those vessels with the fisheries regulations of the relevant coastal State. Moreover, such beneficial owners must also themselves comply with these regulations where they are directly subject to them. The prohibition therefore applies to violations of the coastal State's fisheries regulations that result from the vessel's conduct

<sup>109</sup> Ibid at par 138.

<sup>110</sup> Honniball op cit note 76 at 546; Blattner op cit note 15 at 173; S Emmenegger 'Extraterritorial economic sanctions and their foundation in international law' (2016) 33(3) *Arizona Journal of International and Comparative Law* 631–659 at 649; Dugard et al op cit note 47 at 219; J Black 'A new custom thickens: Increased coastal state jurisdiction within sovereign waters' (2017) 37 *Boston University International Law Journal* 355–393 at 371; C Mooradian 'Protecting sovereign rights: The case for increased coastal state jurisdiction over vessel-source pollution in the exclusive economic zone' (2002) 82(3) *Boston University Law Review* 767–816 at 783; Vezzani op cit note 47 at 179; and G Watson 'Offenders Abroad: The case for nationality-based criminal jurisdiction' (1998) 17(1) *Yale Journal of International Law* 41–84.

<sup>111</sup> Blattner op cit note 15 at 163; C Blakesley 'United states jurisdiction over extraterritorial crime' (1982) 73(3) *Journal of Criminal Law and Criminology* 1109–1163 at 1123; Emmenegger op cit note 110 at 646; Dugard et al op cit note 47 at 216; Black op cit note 47 at 368; and E Podgor "'Defensive territoriality": A new paradigm for the prosecution of extraterritorial business crimes' (2002) 31(1) *Georgia Journal of International and Comparative Law* 23.

as well as the violations for which the beneficial owners are directly responsible.

If a vessel owner State bases its prescriptive jurisdiction on the subjective territoriality principle, it must regulate an activity of the vessel beneficial owner that is conducted within or from its territory. It could, for example, provide that a vessel beneficial owner may not enter into any arrangement involving the use of its vessel if it engages in IUU fishing, or otherwise be involved in the preparation or organisation of IUU fishing by the vessel, or in the trade of fish and fisheries products resulting from the vessel's fishing operations. The rules could also prohibit beneficial owners from receiving any income or other benefits that result from or are otherwise related to IUU fishing by the vessel concerned.

The vessel owner State must monitor and ensure compliance with its regulations. The sanctions imposed for violations of its regulations are sufficient to deter violations and deprive offenders of the benefits derived from the illegal operations. It is therefore required to have processes in place that enable the detection of violations if its regulations are breached. The most obvious way is that the affected coastal State or the flag State of the vessel informs the vessel owner State that the vessel concerned was involved in IUU fishing or otherwise violated its fisheries regulations. The vessel owner State could also impose various obligations on a beneficial owner of a fishing vessel that would make it easier to apply its regulations, such as an obligation for the beneficial owner to register with the vessel owner State's authorities.

Moreover, a vessel owner State should also be obliged to co-operate with the coastal or flag State if vessels beneficially owned or operated by its nationals engage in IUU fishing. There are various ways in which a vessel owner State can fulfil this obligation. It could cooperate with the coastal and flag States by exchanging information about the vessel beneficial owner and its connected persons, such as directors and shareholders, in order to enable the coastal or flag State to initiate legal proceedings against them. It could also assist the coastal and flag State in enforcing its sanctions against the offenders and taking recourse against their assets for any fines and other claims of the flag or coastal State.

Since Article 73 of the LOSC prohibits the coastal State from imposing prison sentences for breaches of its fisheries regulations, extraditing the vessel beneficial owner to the

coastal State may not be appropriate, although Article 73 of the LOSC does not impose such restrictions on flag States. However, the coastal or flag State could request the vessel owner State to initiate proceedings against the offenders and agree with the vessel owner State that if the latter imposes fines or other monetary sanctions, all or part of their proceeds will be allocated to the affected coastal State.<sup>112</sup>

If a coastal State is a party to the PSMA, it has certain obligations to take measures against vessels involved in IUU fishing in its capacity as a port State.<sup>113</sup> The PSMA requires a port State to refuse entry to its port or the use of port services by a vessel that is suspected to have engaged in IUU fishing.<sup>114</sup> The PSMA contains a verification regime designed to detect IUU fishing activities through a system of inspections.<sup>115</sup> The results are shared with the flag State and other relevant States and organisations to facilitate enforcement action if illegal activities are detected.<sup>116</sup> If, following port State inspection, a flag State receives an inspection report indicating that a vessel flying its flag has engaged in IUU fishing, it must investigate the matter and take enforcement action under its laws and regulations.<sup>117</sup> Flag States must oblige their vessels to cooperate with inspections that a port State carries out in accordance with the PSMA. Consideration could be given to extending similar rights that are granted to flag States under the PSMA to vessel owner States in order to support the latter's compliance with their obligations.

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<sup>112</sup> See for example Article 14 of the 2000 United Nations Convention against Transnational Organised Crime [40 *ILM* 335 (2001)]; and Mauritius: Article 41(3) of the Fisheries Act 2023.

<sup>113</sup> Article 3 PSMA.

<sup>114</sup> Articles 9–11 PSMA

<sup>115</sup> Part 4 PSMA

<sup>116</sup> According to Article 15 PSMA, these include '(i) those states for which there is evidence through inspection that the vessel has engaged in IUU fishing or fishing related activities in support of such fishing within waters under their national jurisdiction; (ii) the state of which the vessel's master is a national; (iii) relevant regional fisheries management organizations; and (iv) FAO and other relevant international organizations'.

<sup>117</sup> Article 20 PSMA.

## V RECOMMENDATIONS FOR COASTAL STATES' SUPPORTING MEASURES

There are various measures that a coastal State may adopt to reinforce the obligations of vessel owner States. Given that a coastal State can determine the conditions that apply to access its EEZ, it can impose various obligations on persons connected with the relevant vessel to obtain authorisation and comply with ongoing obligations that can be imposed on the manner in which the fishing activities are conducted. An important tool for fighting against IUU fishing is adequate information about the vessel owner and operator, including details of the legal and registered owner's beneficial owner or owners. The definition of beneficial owners could for this purpose be aligned with those used globally in the context of anti-money laundering and terrorism financing regulations.<sup>118</sup>

Another way of enhancing compliance with the coastal State's fisheries regulations, is to require the vessel's legal or beneficial owner, or its operator, to provide financial security, such as a guarantee or bond, to cover fines and other penalties that a coastal State may impose in the event of breaches of its regulations.<sup>119</sup> Any breaches should be disclosed so that it can be taken into account by the flag State and other States whose fishing authorisation for the vessel or its connected persons is sought.

The regulations could make the operator, legal owner, and beneficial owner of the vessel jointly liable for unauthorised fishing activities. The relevant regulations can provide for

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<sup>118</sup> The following definition is suggested by the Financial Action Task Force (which is the global money laundering and terrorist financing watchdog and sets international standards that aim to prevent these illegal activities): 'Beneficial owner refers to the natural person(s) who ultimately owns or controls a company and/or the natural person on whose behalf a transaction is being conducted. It also includes those persons who exercise ultimate effective control over a legal person or arrangement. Only a natural person can be an ultimate beneficial owner, and more than one natural person can be the ultimate beneficial owner of a given legal person.' See Financial Action Task Force *International Standards on Combating Money Laundering and the Financing of Terrorism & Proliferation* (2012–2023) 120; and Financial Action Task Force *Guidance on Transparency and Beneficial Ownership* (2014).

<sup>119</sup> See for example Liberia: Section 5.4 of the National Fisheries and Aquaculture Authority Law 2019; and Mauritius: Article 62 of the Fisheries Act 2023.

this.<sup>120</sup> Even if the information about the beneficial owner was not disclosed as part of the authorisation process, it may be possible to obtain this information through other sources.<sup>121</sup> However, the position could be enhanced by involving the beneficial owners in the authorisation process and explicitly requiring them to assume responsibility for any breaches resulting from the vessel's activities. This could be particularly relevant in cases where the legal owner of the vessel is a special purpose entity with no other meaningful activity than ownership of the vessel. The information about the vessel beneficial owner may also make it possible to require the State in which it is located to take action based on that State's responsibility under international law in situations where the vessel beneficial owner fails to comply with its obligations, and the flag State is unresponsive or unable to enforce its measures because the beneficial owner is not located within its territory.

The regulatory situation is different for vessels that fish in the EEZ without authorisation. They will have breached the coastal State's fishing regulations as a result of such conduct. However, there is no direct link between the coastal State and the persons connected with the vessel that could be used to impose sanctions, and the coastal State will have to rely on the prohibitions contained in its fisheries regulations. Although

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<sup>120</sup> See for example Liberia: Section 1.3 of the National Fisheries and Aquaculture Authority Law 2019: "[O]perator" means any person who is in charge of, responsible for the operations of, directs or controls a vessel, including the owner, charterer, master and the beneficiary of the economic or financial benefit of the vessel's operations.' It defines owner as 'any person exercising or discharging or claiming the right or accepting the obligation to exercise or discharge any of the powers or duties of an owner whether on his own behalf or on behalf of another, and includes a person who is the owner jointly with one or more other persons and any manager, coordinator and secretary of any corporation which is an owner.' Mauritius provides in Art 1 of the Fisheries Act 2023: "[O]wner", in relation to a fishing vessel (a) means a person who owns, or persons who own, the vessel; and (b) includes (i) a beneficial owner; (ii) a charterer, whether bare vessel, time or voyage; (iii) a person who acts in the capacity of a charterer; or (iv) a person upon whom control over the destination, function or operation of the vessel is conferred under a management agreement or other similar agreement.'

<sup>121</sup> Trygg Mat Tracking in cooperation with C4ADS 'Spotlight on: The exploitation of company structures by illegal fishing operators' (undated) available at [https://1ae03060-3f06-4a5c-9ac6-b5c1b4a62664.usrfiles.com/ugd/1ae030\\_4e59a8cf86364c1a83eb385cb57619f7.pdf](https://1ae03060-3f06-4a5c-9ac6-b5c1b4a62664.usrfiles.com/ugd/1ae030_4e59a8cf86364c1a83eb385cb57619f7.pdf) (accessed 31 October 2025) 9; and Brush op cit note 10 at 43.

a coastal State cannot prohibit the transit of fishing vessels through its EEZ, it can require that vessels report their entry and position in protected areas, or conduct an investigation if, as a result of a vessel's behaviour, it has reasonable suspicions that the vessel may be engaged in fishing activities. The use of technology, such as satellites, drones and vessel tracking and monitoring technology, can be used to detect unauthorised fishing or suspicious navigation patterns.<sup>122</sup> For example, the Cabo Verdean regulations provide that a vessel is presumed to be engaged in fishing activities if it reduces its speed to less than four knots for three hours or more.<sup>123</sup>

## VI CONCLUSION

The responsibility of vessel owner States should be considered an addition to the responsibility of flag and coastal States in combating IUU fishing. The three categories of States that have such responsibility will need to co-operate to ensure that they can comply with their respective obligations under international law. An important condition for such cooperation is that their fisheries regulations enable them to fight adequately against IUU fishing. With regard to a coastal State, this should address IUU fishing in its EEZ. The flag State should prohibit IUU fishing by fishing vessels flying its flag. The vessel owner State should prohibit its nationals from beneficially owning or operating fishing vessels that engage in IUU fishing.

The actual circumstances may determine the role of a flag, coastal, or vessel owner State in a particular case, and their degree of responsibility and resulting obligations. If a coastal State allows a fishing vessel access to its EEZ, it is not illogical to consider that the coastal State is primarily responsible for ensuring compliance with its fisheries regulations, for example,

<sup>122</sup> See for example P Girard & T Du Payrat 'Issue Paper: An inventory of new technologies in fisheries' (2017) available at <https://www.coursehero.com/file/74922619/GGSD-2017-Issue-Paper-New-technologies-in-Fisheries-WEBpdf/> (accessed 31 October 2025); E Molenaar & M Tsamenyi 'Satellite-based vessel monitoring systems for fisheries management: International legal aspects' (2000) 15(1) *IJMCL* 65–109; and M Taconet, D Kroodsma & J A Fernandes 'Global atlas of AIS-based fishing activity – Challenges and opportunities' (2019) available at <https://openknowledge.fao.org/server/api/core/bitstreams/186ac415-57c5-4175-a014-16b74a59ff97/content> (accessed 31 October 2025).

<sup>123</sup> Article 133(1) Decreto-Legislativo n° 2/2020 de 19 de março. See also Arts 38(2) and 190 of the Mauritius Fisheries Act 2023.

through the access conditions it imposes. The flag State and vessel owner State's responsibility can in that situation support the coastal State's enforcement measures, for example, if the latter is unable to impose or enforce sanctions against the offenders.

However, if the IUU fishing activities occur without the consent of the coastal State, it may be more appropriate to impose the primary responsibility for sanctioning such activities on the flag State. If the flag State does not comply with its obligations, or is unable to impose meaningful sanctions, the vessel owner State should assume its responsibility. A vessel owner State is primarily responsible in the case of a stateless vessel, since there is no flag State that can play a role. In these circumstances, the vessel owner State would be the best positioned State to take action, supported by the coastal State.

Furthermore, the vessel owner State may also be the most appropriate State to act against criminal organisations that are involved in IUU fishing, given that the beneficial ownership of vessels used for these purposes can often be traced to the persons owning and leading such organisations. These persons are also likely to benefit most from the illegal activities, and closing down the operations of these organisations could have a significant impact on the chain of persons involved in IUU fishing and the trade in illegally caught fish.

If States are revising their fisheries regulations, they should take account of their international legal obligations as flag, coastal, port as well as vessel owner States and opt for regional harmonisation of fisheries regulations, which would make it easier to cooperate in their enforcement. For example, although African States may have different legal traditions, this situation should not be an impediment to harmonisation given the objective of fisheries regulations and the international legal obligations to which such States are subject. Regional initiatives for harmonisation as well as regional co-operation in monitoring and enforcing compliance with fisheries regulations should therefore be placed high on the agenda of States and regional organisations that deal with fisheries related matters.<sup>124</sup>

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<sup>124</sup> See also the activities of the African Union referred to in note 2; Southern African Development Community (SADC) Secretariat 'Protecting our fisheries: Working towards a common future' (2021) 55; and NEPAD Planning and Coordinating Agency, African Union Interafrican Bureau for Animal Resources *The Pan-African Fisheries and Aquaculture*

The measures and actions that States, international organisations and non-governmental organisations take against IUU fishing should be based on the assumption that all three States, coastal, flag and vessel owner States, have responsibilities under international law concerning the fight against IUU fishing, and these States, if they fail to comply with their responsibilities, should be held to account. Pursuing this through judicial or arbitral proceedings under the LOSC is one option, but this could be a lengthy and expensive route with a possibly ineffective result. However, there are other measures to put pressure on non-co-operating States, such as:

- (a) Refusing port access to fishing vessels flagged to non-cooperating flag States or that are owned or operated by nationals of non-cooperating vessel owner States (whether or not the vessel itself has engaged in IUU fishing);
- (b) suspending or withdrawal of fishing rights granted to vessels that are flagged to a non-cooperating flag State or owned or operated by nationals of a non-cooperating vessel owner State;
- (c) identification by non-governmental organisations of companies that benefit from IUU fishing by vessels operated or owned by them, combined with a public awareness campaign against these companies and the State where the companies are established;
- (d) legal action in national courts, for example, initiated on behalf of victims of IUU fishing against companies that benefit from IUU fishing by vessels operated or owned by them; and
- (e) legal action in the national courts on behalf of victims of IUU fishing, such as local fishers, against the government of a vessel owner State to force the government to comply with its international legal obligations to act against vessel beneficial owners and their related companies.

These recommendations and other measures against beneficial owners of vessels and vessel owner States should lead to more effective measures against IUU fishing.

# THE ROLE OF COASTAL INDIGENOUS COMMUNITIES IN CIRCULAR ECONOMY PRACTICES

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*Circular Economy (CE) is now seen as transformative approach to addressing environmental and economic challenges. While most of the attention is placed on industrial and large-scale operations, coastal indigenous communities have been upholding circularity for decades through indigenous knowledge systems that emphasise environmental stewardship and regeneration resources. This paper explores the role of coastal indigenous communities in circular economy practices. A great emphasis is placed on the importance of traditional knowledge in sustainable management of resources. The paper highlights the longstanding integration of circular economy principles within indigenous livelihoods and explores how the modern circular economy can benefit from these practices. The paper adopts a qualitative approach to identify key themes such as ocean pollution, policy frameworks, economic growth and the potential of recognising indigenous knowledge CE perspectives into sustainability strategies. The key findings of the paper lay out the importance of policy support in recognising indigenous knowledge contributions and the necessity for a bottom-up approach in implementation.*

**[Keywords]** circular economy, pollution, waste management, coastal, indigenous communities

## I INTRODUCTION

Marine pollution has been a global phenomenon for decades. One of the notable factors that contributes to this issue is increasing human populations. As the global populations rises, the demand for necessities from food to energy resources have largely contributed to the high volumes of marine pollution. The high levels of ocean pollution expose the shortcomings of the linear model which is based on a take-make-dispose approach resulting in excessive resource depletion, pollution

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and environmental degradation. The circular economy model has been seen as a possible solution to sustainability.<sup>1</sup>

South Africa faces a number of complex challenges that hinder its economic development, including widespread inequality, energy insecurity and significant environmental issues such as pollution and resource depletion. According to Godfrey,<sup>2</sup> the traditional linear economic model has contributed to these problems, as it promotes unsustainable consumption patterns and waste generation. In contrast, circular economy principles advocate for the sustainable usage of resources, waste reduction and the regeneration of natural systems, offering a pathway to address some of these pressing challenges. The South African government has recognised the importance of transitioning to a circular economy as part of its broader strategy for sustainable development. The Department of Forestry, Fisheries and the Environment (DFFE) has developed guidelines aimed at facilitating this transition, particularly within the waste sector. These guidelines emphasise the need for a systemic approach to resource management, focusing on materials flow and the value chain to maximise resource recovery and minimise waste<sup>3</sup>. While much attention has been given to large industrial practices and businesses, the sustainable waste management strategies that have been historically practised by coastal indigenous communities is often overlooked.

For decades, Coastal indigenous communities have practised circularity that is similar with circular economy principles. These groups have always depended on marine resources for livelihoods, using knowledge aligned with environmental protection and sustainable development. However, the contributions of these communities remains underrepresented in mainstream circular economy research and development.<sup>4</sup>

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<sup>1</sup> M Geissdoerfer, S N Morioka, M M de Carvalho & S Evans 'Business models and supply chains for the circular economy' (2018) 190 *Journal of Cleaner Production* 712–721.

<sup>2</sup> L Godfrey 'African challenges for achieving the Sustainable Development Goals (SDGs) and the role of knowledge transfer' (paper presented at Africa-Europe Dialogue Symposium on Innovation for Sustainable Development, Pretoria (29 November 2017)).

<sup>3</sup> Department of Environment, Forestry and Fisheries: A circular economy guideline for the waste sector (2020).

<sup>4</sup> P K Mukherjee et al 'Socio-economic sustainability with circular economy – An alternative approach' (2023) 904 *Science of The Total Environment*.

The aim of this paper is to discuss the contribution of coastal indigenous peoples towards advancing circular economy (CE) practices with a specific focus on how traditional knowledge can be used to promote the sustainable management of resources. This analysis considers Indigenous ways of living as they have always included the principles of a circular economy, and evaluates the possibility of integrating these practices into modern models of sustainability. Using a qualitative research methodology, this article identifies major themes including marine pollution, policy structures, economic development and the opportunities and challenges of considering indigenous perspectives of the circular economy. Ultimately, the paper highlights the necessity of policy support and a bottom-up implementation approach to ensure that indigenous knowledge (IK) is meaningfully incorporated into circular economy discourse and practice. To achieve this, the paper conducts a SWOT analysis to assess the strengths, weaknesses, opportunities and threats associated with integrating indigenous knowledge into CE frameworks. Furthermore, it proposes a pathway framework that outlines key strategies for effectively embedding indigenous coastal knowledge within mainstream sustainability and economic policies.

This paper has the following structure: Section two initiates an integrated literature review on the definition of Circular Economy, indigenous knowledge systems, and some cases where indigenous circular approaches has been applied. Section three highlights the methodology used in the paper. In Section four, the results are provided in terms of themes, accompanied by the SWOT matrix and the proposed integration framework. Finally, conclusions in terms of recommendations on the integration of indigenous knowledge systems in CE strategies are provided in the last section.

## II BACKGROUND AND LITERATURE

### (a) Defining circular economy (CE)

The circular economy model is often communicated as the new kid on the block. However, digging back to the work of Boulding published in 1966, it is stated that humanity must position itself in a cyclical ecological system which is capable

of continuous reproduction of materials.<sup>5</sup> Later, further clarification was provided by Stahel. Stahel and Reday, in a 1976 a research report titled *The Potential for Substituting Manpower for Energy* put forth a circular economy vision and its implications for job creation, economic growth, resource utilisation, and waste minimisation.<sup>6</sup> In the recent years, the concept was popularised by the definition provided by the Ellen MacArthur Foundation. The foundation defines circular economy (CE) as a system whose design is restorative and regenerative to keep products, components and materials at their optimum usability.<sup>7</sup>

Additionally, Zils<sup>8</sup> provides an elaborative definition of CE. He states that CE ‘aims to eradicate waste – not just from manufacturing processes, as lean management aspires to do, but systematically, throughout the life cycles and uses of products and their components.’ This opinion suggests that a linear economy follows the take-make-dispose model and wastes materials, energy and labour, while the circular economy adopts tight cycles of components and products, use and reuse, supported by the product design.<sup>9</sup> Furthermore, unlike the traditional linear economic model based on a ‘take-make-consume-throw away’ pattern, a circular economy is based on sharing, leasing, reuse, repair, refurbishment and recycling, in an almost closed loop, where products and the materials they contain are highly valued. In practice, it implies reducing waste to a minimum.

## **(b) Historic context of indigenous circularity**

As the concept of a circular economy is increasingly becoming a key political agenda, it must be acknowledged that circularity has been practiced for decades by indigenous communities. These

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<sup>5</sup> K E Boulding ‘The Economics of the coming spaceship earth’ in H Jarrett (ed) *Environmental Quality in a Growing Economy* (1966) 3–14.

<sup>6</sup> Ibid.

<sup>7</sup> Ellen MacArthur Foundation Circular Economy: Concept (2017) available at <https://www.ellenmacarthurfoundation.org/circular-economy/overview/concept>

<sup>8</sup> M Zils, M Howard & P Hopkinson ‘Circular economy implementation in operations & supply chain management: Building a pathway to business transformation’ (2023) 36(4) *Production Planning & Control* 501–520.

<sup>9</sup> Ibid.

communities possess critical knowledge as the custodians of the environment surrounding them. However, the gap that must be challenged is how mainstream development strategies can recognise and learn from these frontline grassroots communities as well as systematically document and integrate traditional knowledge into policies for the benefit of the broader society.<sup>10</sup>

Indigenous forms of waste management played an important role in the prevention, disposal, reduction, and recycling of trash in indigenous societies before colonialism. Indigenous environmental waste management techniques have always been practised in sustainable environmental policy in indigenous societies before the building of mainstream sciences facilitated by colonial means.<sup>11</sup> Indigenous peoples all over the world are completely aware of the dangers and consequences of inefficient waste management procedures among their populations but are typically not well resourced to address them. To counter the impacts associated with this, indigenous communities proactively innovate ways to manage waste by utilising indigenous knowledge.

Falsarone<sup>12</sup> states that for prolonged periods of time, coastal and indigenous communities have engaged in resource management systems that align with the principles of a circular economy, which emphasises sustainability, waste reduction, and resource regeneration. This author notes that despite comprising only five percent of the global population, indigenous communities manage lands that harbour approximately 80 per cent of the world's biodiversity. Their practices are rooted in a deep understanding of ecological balance, where every resource is utilised judiciously to ensure its regeneration for future generations.<sup>13</sup>

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<sup>10</sup> A Assuah "“A lot of people ignore our culture when it comes to waste management”: Examining the impacts of culture on solid waste management in two Canadian First Nations’ (2023) 19 *AlterNative: An International Journal of Indigenous Peoples* 466–474.

<sup>11</sup> Ibid.

<sup>12</sup> A Falsarone *A Week of Circularity: Indigenous Perspectives* (2021).

<sup>13</sup> Ibid.

### **(c) The circular economy-IKS nexus**

Even though the concept of a circular economy is often described within an innovative framework aimed at tackling present-day environmental issues, a detailed examination would disclose a great similarity with indigenous knowledge built up over the millennia with regard to handling some of the limitations seen within the implementation of a circular economy concept.<sup>14</sup> As discussed in the previous section, indigenous societies have always used a cyclical economy; however, below we take a look at its relation to the existing concept of a circular economy.

The symbiosis between the concept of a circular economy and indigenous knowledge is neither coincidence nor just a passing fad but an expression of rudimentary principles discerned in the past and present relation of mankind with nature itself. However, it is pertinent to note that the conceptual execution of a mainstream approach and a mainstream understanding of a circular economy may often undermine itself because of some conceptual overlaps and gaps, which have always been covered in indigenous knowledge systems with a set of values and mores embedded within indigenous culture itself.<sup>15</sup>

Table 1 below aligns key principles of a circular economy with mainstream gaps in implementation and shows how indigenous knowledge systems offer holistic solutions with a potential that Western industry has failed to reach. From this table, it's clear that indigenous knowledge is not only supplementary to a circular economy, but rather it is key in terms of shaping a conceptual framework for its delivery.

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<sup>14</sup> A Khajuria *Nexus of Circular Economy and Industry 4.0 to achieve the UN Sustainable Development Goals* (2021) 10. 30–34, available at <https://doi.org/10.9790/1813-1012013034>

<sup>15</sup> N Flores *Indigenous Wisdom and Circular Economy: When Indigenous Relational Economy Theory Meets Western Sustainability and Circular Economies* (2024).

**Table 1:** Case studies of CE practices in coastal communities

| Circular economy principle | Gap in mainstream CE implementation                                                                                                     | How indigenous knowledge systems address this gap                                                                                         | Example from practice                                                                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Waste minimisation         | Focuses primarily on technological solutions and end-of-pipe recycling; treats waste as a technical problem rather than systemic issue. | Embedded cultural prohibition against waste; traditional practices utilise entire resources with zero-waste orientation.                  | Indigenous fishing communities use every part of the fish – flesh for food, bones for tools, scales for decoration, waste for fertiliser. <sup>16</sup> |
| Resource regeneration      | Short-term economic incentives prioritise extraction over regeneration; quarterly profit cycles conflict with ecological timeframes.    | Intergenerational thinking embedded in decision-making: ‘seven generations ahead’ principle ensures resources for descendants.            | Rotational harvesting systems that allow ecosystems to recover; leaving portion of catch to reproduce. <sup>17</sup>                                    |
| Closed-loop systems        | Implemented primarily at industrial scale; disconnected from local ecosystems and community needs.                                      | Community-based reciprocity systems create natural closed loops; resources circulate within communities based on need rather than profit. | Gift economies and sharing systems ensure tools, knowledge, and resources circulate; redistribution practices prevent accumulation. <sup>18</sup>       |

<sup>16</sup> Op cit note 12.

<sup>17</sup> F Berkes, C Folke & J Colding *Linking social and ecological systems: Management practices and social mechanisms for building resilience* (2000).

<sup>18</sup> Ibid.

| Circular economy principle   | Gap in mainstream CE implementation                                                                       | How indigenous knowledge systems address this gap                                                                                                | Example from practice                                                                                                                                             |
|------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable consumption      | Relies on consumer behaviour change campaigns and individual responsibility frameworks                    | Cultural values transmitted inter-generationally create innate understanding of limits; consumption embedded in spiritual and social frameworks. | Traditional stories and ceremonies teach taking only what is needed; consumption practices tied to seasonal cycles and ecological awareness. <sup>19</sup>        |
| Product longevity and repair | Planned obsolescence remains economically incentivised; repair infrastructure underdeveloped.             | Cultural emphasis on maintenance, repair, and multi-generational use of tools and materials.                                                     | Fishing equipment, boats, and tools maintained and passed down through generations; repair knowledge considered valuable cultural capital.                        |
| Systems thinking             | Siloed sectoral approaches dominate policy; economic systems treated as separate from ecological systems. | Holistic worldviews that recognise the inseparability of ecological, social, economic, and spiritual dimensions.                                 | Indigenous resource management integrates ecological knowledge, social relations, spiritual practices, and economic activities as a unified system. <sup>20</sup> |

<sup>19</sup> R Heaslip ‘Monitoring salmon aquaculture waste: The contribution of First Nations’ rights, knowledge, and practices in British Columbia, Canada’ (2008) 32(6) *Marine Policy* 988–996.

<sup>20</sup> F Capra & P L Luisi *The Systems View of Life: A Unifying Vision* (2014).

| Circular economy principle | Gap in mainstream CE implementation                                              | How indigenous knowledge systems address this gap                                                 | Example from practice                                                                                                                                 |
|----------------------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Local resource utilisation | Global supply chains prioritised; local resources undervalued in economic terms. | Deep knowledge of local ecosystems enables optimal use of locally available materials.            | Use of indigenous materials for construction, medicine, food that require minimal processing and have minimal environmental footprint. <sup>21</sup>  |
| Adaptive management        | Rigid regulatory frameworks slow adaptation to changing conditions.              | Flexible knowledge systems that evolve with ecological changes while maintaining core principles. | Traditional ecological knowledge continuously updated through observation; practices adapt while maintaining sustainability principles. <sup>22</sup> |

A study conducted by Heaslip<sup>23</sup> looked into monitoring salmon aquaculture waste and the contribution of indigenous communities’ rights, knowledge and practices in Canada. The study highlights that the fish farm waste is managed through the integration of the values, knowledge and stewardship practices of indigenous communities. The author reiterates that healthy traditional diet sources are important to coastal indigenous communities and therefore, the management and monitoring of fish-farm waste is prioritised. This study, however, also mentions that are challenges that hinder the integration of traditional knowledge and stewardship practices with science-based marine environmental protection. The major limitation is

<sup>21</sup> Op cit note 19.  
<sup>22</sup> Op cit note 17.  
<sup>23</sup> Op cit note 19.

always the difficulty in translating indigenous knowledge and science into forms that are mutually intelligible, in ways that make it accessible to policy makers. The study recommends that the process of implementing an aquaculture management system goes beyond the participation indigenous people, it must integrate traditional knowledge holders from the onset.<sup>24</sup>

The oceanic society provides another example where circular economy is seen through eco-tourism. The report dates back to 2008 when plastic waste threatened both the environment and the economy in a small coastal town in Kenya called Watamu, known for its beaches. The report estimates that approximately 37 tons of plastic pollution washed onto the shore per year which had a huge impact its on coral reefs, polluting beaches and ultimately driving away tourists and affecting the small businesses that depended on them.<sup>25</sup> The biggest issue that was noted was the lack of balance between local economic and environmental protection. The Watamu community experienced competition over marine resources where local fishermen prioritised fishing coral reefs for livelihoods, while dive operators prioritised the protection of the reefs for ecotourism purposes. This resulted in the engagement of various stakeholders, including local businesses, environmentalists, and tourism operators, who convened to deliberate on the challenges posed by plastic waste and to explore potential solutions. The outcome of these discussions was the implementation of a strategy focused on the removal of plastic waste from the coastline, its repurposing for productive use, and the concurrent protection of the environment. This approach not only aimed at environmental conservation but also sought to generate job opportunities for the local community.<sup>26</sup>

This is one of the success stories because it demonstrates the effective integration of circular economy principles into coastal waste management. As Trott noted, 'Our big focus is on plastic, as plastic has a high value and... is the big problem.'<sup>27</sup> Since the implementation of these initiatives, over 500 community

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<sup>24</sup> Ibid.

<sup>25</sup> Z Theiler 'Circular economy protects nature and tourism in Kenya' (2024) *Oceanic Society* available at <https://www.oceanicsociety.org/program-updates/circular-economy-protects-nature-and-tourism-in-kenya/> (accessed 18 March 2025).

<sup>26</sup> Ibid.

<sup>27</sup> Ibid.

members in Watamu have gained a source of income by collecting and selling plastic waste to the Watamu Marine Association (WMA). This initiative has resulted in the removal of approximately 10 to 20 tons of plastic from the coastline each month. Additionally, hotels that previously restricted local vendors have now become active participants in waste management efforts by sponsoring beach-cleaning programmes, reinforcing the link between environmental sustainability and economic development in the region.<sup>28</sup>

A specific example is the Wild Coast in South Africa's Eastern Cape Province, where the customary management of marine resources in areas like Pondoland and Dwesa-Cwebe can be seen to be governed by customary law related to 'forest hunting, fishing, and shellfish gathering' with a history that is 'the oldest dating back centuries' to the settlement of key locations 'such as the Mbashe River'. The question of whether these customary management systems correspond with those of a circular economy within the ordinary understanding is one that is left unanswered here. It is important to note that these 'are Indigenous knowledge systems derived within specific cultural contexts' rather than 'reflecting a defined conceptual framework' and 'are conceived within an entirely different paradigm' from a circular economy, because 'they may look similar on a conceptual level which includes 'resource use efficiency, waste reduction, and cyclical thinking.'<sup>29</sup>

The communities face a series of challenges currently. It is evident from empirical research that the density of plastic waste in South African beaches is always high in areas close to urban areas despite affecting distant areas within South African coasts.<sup>30</sup> However, the loss of shipping containers in recent times has increased the presence of pharmaceutical bottles and other waste materials within Eastern Cape beaches, including Port Alfred, Kenton-On-sea, Cannon Rocks, and Boknes beaches.<sup>31</sup> Climate change further alters the existing traditional knowledge

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<sup>28</sup> Ibid.

<sup>29</sup> S Tsawu *Traditional Authorities and Co-Management of Protected Areas in South Africa: The Case of Dwesa-Cwebe Nature Reserve in the Eastern Cape* (2022).

<sup>30</sup> P G Ryan 'The transport and fate of marine plastics in South Africa and adjacent oceans' (2020) 116(5–6) *South African Journal of Science* 1–9.

<sup>31</sup> Sustainable Seas Trust 2024. *Shipping containers cause environmental disaster on the South African coastline*. Press release, 30 October.

concerning the best times and locations for fishing purposes. This occurs despite the issue being rather complicated within existing theoretical frameworks related to Satellite L-band radiometer observations within South African coasts. These considerations were introduced within 2014 climate change policies and statements due to a lack of awareness concerning climate change within South African fisher communities.<sup>32</sup>

While indigenous coastal communities have demonstrated innovative ways to incorporate circular economy principles into their livelihoods, they continue to face significant challenges posed by ocean pollution. The increasing accumulation of plastic waste and other pollutants threatens not only marine ecosystems but also the rights and traditional practices of these communities.<sup>33</sup>

### III OCEAN POLLUTION AND INDIGENOUS COASTAL COMMUNITIES' RIGHTS

The issue of ocean pollution is a complex challenge like the rest of global challenges. Ocean pollution does not only threaten livelihoods of communities who depend on marine resources for a living, it also results in different health issues for communities who consume seafood affected by toxic micro- and nano-plastics.<sup>34</sup> UNDP<sup>35</sup> states that human rights are impacted at every stage of the plastic lifecycle. Some of these impacts include litter mismanagement, exposure of consumer plastics to toxic additives, toxic pollutants emitted in production, disinformation campaigns regarding the dangers of plastic and pollution solutions. Human rights standards are therefore instrumental in enabling warranted and effective actions.

#### (a) Right to health

Pollution hinders the ability of indigenous communities to enjoy high standards of health, as it negatively impacts marine life, upon which these communities are dependent for a source of food and nutrition as well inputs for indigenous

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<sup>32</sup> Ibid.

<sup>33</sup> Ibid.

<sup>34</sup> United Nations Development Programme (UNDP) Circular economy available at <https://climatepromise.undp.org/what-we-do/areas-of-work/circular-economy> (accessed 4 March 2025).

<sup>35</sup> Ibid.

medicines and supporting services, such as atmospheric oxygen production. According to research, marine plastics may lower atmospheric oxygen production by preventing *Prochlorococcus*, a photosynthetic microorganism that generates about 10% of atmospheric oxygen, from growing and functioning. They may also affect regulating services, like the sequestration of carbon, which controls atmospheric greenhouse gas emissions, and cultural services, like the mental health benefits of marine biodiversity and clean beaches.<sup>36</sup>

### **(b) Right to food**

Though microplastics are now widespread in food that is ingested by humans, the implications for human health have yet to be fully studied. Plastic particles have been discovered in the intestines of fish from various oceans and even in such products such as sea salt. Standardised procedures for determining the health risk of plastic particle ingestion do not yet exist. For fish at least, people do not normally consume their digestive tract where plastic is likely to accumulate, so ingestion is likely to be limited. Where people consume whole organisms, i.e., mussels and oysters, rates of ingestion could be higher.<sup>37</sup>

Marine pollution has the potential to decrease the feasibility and profitability of indigenous communities' economic activities that depend on marine ecosystems. This may be caused by a decrease in the available marine resources or by diminishing the ecotourism business in response to the ecological and aesthetic effects of plastic litter. The economic and social effects of marine litter involve indirect impacts, for instance, interference with recreational activities, tourism, and small-scale fishing.<sup>38</sup> Such costs are not typically measured; however, they have the potential to impact disproportionately on individuals whose livelihoods are directly linked to coastal activities.

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<sup>36</sup> Ibid.

<sup>37</sup> P J Landrigan et al 'Human health and ocean pollution' *Annals of Global Health* 2020 December 3:86.

<sup>38</sup> Ibid.

### **(c) Right to culture**

Plastic pollution can have a detrimental impact on human rights related to culture by reducing access to coastal areas and resources that are necessary for cultural activities. These also include indigenous groups whose cultural activities are key to their identity and well-being. Recycled ocean plastic can also become an object of material culture and may displace ‘traditional’ and more eco-friendly heritage artifacts.<sup>39</sup>

The sections discussed above make it clear that effective solutions must not only address environmental protection but also the rights and knowledge systems of communities that are most affected by these issues.

## **IV INTEGRATION OF INDIGENOUS KNOWLEDGE INTO MAINSTREAM FRAMEWORKS**

An elder once taught: ‘Pay attention to intention. There are many big, shiny, and new things, but most of them are just reinventions of the same old.’ ‘The same old’ is the centuries-old intent and mindset to remove and exploit. It might be dressed in shiny packages, but the core of it has remained the same – extractive. Most indigenous cultures teach from childhood to only take what is needed, leave a little behind so that it can replenish itself, and think for future generations. Traditional stories which hold this knowledge and teach the fundamental principles of living in balance with nature, self, and others are handed down from one generation to another. In the majority of indigenous worldviews, sharing, giving back, and regeneration are the paramount ideas of sustainable and peaceful existence.<sup>40</sup>

Many indigenous cultures, teach from childhood to take only what you need, leave some behind so it can regenerate itself, and to think seven generations ahead. Traditional stories that encapsulate this wisdom and teach the basic principles of living in harmony with nature, yourself, and others are passed on from generation to generation. In many indigenous

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<sup>39</sup> G Holly, A Rey da Silva & J Henderson et al ‘Utilizing marine cultural heritage for the preservation of coastal systems in East Africa’ (2022) 10(5) *Journal of Marine Science and Engineering* 693.

<sup>40</sup> *Cultural Survival Returning to circular economies rooted in Indigenous values* available at <https://www.culturalsurvival.org/publications/cultural-survival-quarterly/returning-circular-economies-rooted-indigenous-values> (accessed 4 March 2025).

worldviews, regeneration, sharing, and giving back are at the core of harmonious and true sustainable living.<sup>41</sup>

This study makes reference to systems thinking theory as a conceptual framework to unpack ways in which indigenous circular economy principles can be integrated into mainstream discourse. The systems thinking theory is known for providing an understanding of the complex and interconnected nature of economic, environmental, and governance systems. It also provides a holistic approach that moves beyond linear policy development, recognising that indigenous sustainability practices operate within dynamic and interdependent ecological and social systems. The adoption of this theoretical lens allowed the study to recommend a pathway to include indigenous circular economy principles into contemporary policy frameworks.<sup>42</sup> This approach highlights the need for systemic transformation that not only acknowledges indigenous knowledge but also embeds it into sustainable economic models at national and global levels.

Systems thinking is a theoretical perspective that views the world as an interconnected web of relationships, emphasising the interactions and feedback mechanisms that shape systemic behaviour.<sup>43</sup> This perspective is particularly relevant for this study as indigenous knowledge systems inherently embrace a cyclical and regenerative understanding of resource use, land stewardship and economic exchange.<sup>44</sup> Indigenous economies traditionally operate on principles of reciprocity, minimal waste and environmental regeneration, values that align with contemporary sustainability goals but are often overlooked in mainstream economic policies. A key challenge is that dominant policy structures tend to be rooted in linear economic models that prioritise extraction and consumption over regeneration. Systems thinking provides a pathway to bridge these two paradigms by restructuring policy frameworks to accommodate indigenous knowledge and ensure its meaningful application in national and international sustainability strategies.<sup>45</sup>

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<sup>41</sup> Ibid.

<sup>42</sup> D H Meadows *Leverage points: Places to intervene in a system* (Sustainability Institute 1999).

<sup>43</sup> K Raworth *Doughnut economics: Seven ways to think like a 21st-century economist* (2017).

<sup>44</sup> Op cit note 17.

<sup>45</sup> Op cit note 42.

This argument is supported by the Ellen MacArthur Foundation, who state that systems thinking is key in achieving circularity as discussed in the previous sections. It is a foundation for identifying issues and better action-suitable solutions, and it provides the lens through which circular economy is conceptualised and understood. The systems perspective allows for a more accurate and nuanced understanding of the economy as one part of a much larger whole. It enables a more precise and sophisticated comprehension of the economy as being part of a significantly larger system. Further, it does away with the notion that we are completely in charge of economic forces. The living-systems metaphor offers a new metaphor, likening the economy not to a machine but to a forest. Instead of only quantifying how much material is being processed – it considers recycling and the transport of material that allows life to be maintained, organisms to grow, perish, and then their nutrients are cycled back into the system to nourish subsequent generations. The health of a forest is not measured by its constant increase in dimensions but by whether it can reach maturity and exist in balance with its surroundings.<sup>46</sup>

It is worth noting that both indigenous and coastal communities have been practising successful circularity for numerous generations. Both academic communities and international organisations like the UN Development Programme have, in recent years, turned to indigenous knowledge to learn about the environment, including climate change and natural resource management. In 2020, a special issue of indigenous interpretations of ‘sustainability’ was published in the journal: *Current Opinion in Environmental Sustainability*. A significant result of this project is the variability of views, approaches, and experiences among indigenous peoples on matters of sustainability. Nonetheless, one observation they share is that indigenous views possess a natural conflict towards market systems.<sup>47</sup>

The integration of indigenous knowledge into contemporary sustainability frameworks should also recognise the conceptual alignment between indigenous principles, circular economy strategies, and global sustainability policies. Many CE tenets, such as resource efficiency, regenerative design, and waste

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<sup>46</sup> Op cit note 7.

<sup>47</sup> J Konietzko, A Das & N Bocken ‘Towards regenerative business models: A necessary shift?’ (2023) *Sustainable Production and Consumption*.

minimisation, parallel indigenous approaches to environmental stewardship and long-term ecological balance. These shared principles are further reinforced by international sustainability frameworks, particularly the United Nations Sustainable Development Goals (SDGs), which advocate for responsible consumption and production, climate action, and inclusive economic growth.<sup>48</sup>

At the core of the circular economy is the principle of sustainable consumption and production, which seeks to decouple economic growth from resource consumption. This approach speaks to the United Nations Sustainable Development Goals (SDGs), particularly Goal 12, which emphasises sustainable consumption and production patterns.<sup>49</sup> The circular economy model encourages industries to design longevity cantered products. This not only reduces waste but also creates new economic opportunities. It is globally recognised that humanity's unsustainable patterns of consumption and production are the main factors contributing to the triple planetary crisis: climate change, waste and pollution, and biodiversity loss. As mentioned in the sections above, the current linear economic system is based on a model of extracting raw materials from nature, turning them into products to be consumed, and then discarding them as waste. According to the UNDP currently, only 7.2 per cent of used materials are cycled back into the economies after usage. This has a significant impact on the environment and contributes to environmental issues such as climate, waste, pollution and biodiversity crises. It also increases competition over resources, exacerbating existing social, economic and environmental challenges.<sup>50</sup> This, in turn, can contribute to insecurity at local, national, regional and global levels.

Contrary to this, circular economy approaches are designed to reduce waste and pollution, keep materials and resources in use for a long time and regenerate natural ecosystems and various CE practices have been notable in different sectors such as fashion, textiles, buildings and construction.<sup>51</sup>

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<sup>48</sup> Ibid.

<sup>49</sup> Gaia Education 'SDG 12 – Responsible Consumption and Production explained' (2025).

<sup>50</sup> Op cit note 34.

<sup>51</sup> Op cit note 34.

## V THE GOVERNMENT OF SOUTH AFRICA'S CIRCULAR ECONOMY POLICY FRAMEWORK

While it has been widely emphasised that indigenous knowledge (IK) has historically been overlooked in policy and development frameworks, there have been notable efforts by the South African government to recognise and integrate IK into various sectors. These initiatives include the Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019.<sup>52</sup> This Act aims to:

[P]rovide for the protection, promotion, development and management of indigenous knowledge; to provide for the establishment and functions of the National Indigenous Knowledge Systems Office; to provide for the management of rights of indigenous knowledge communities; to provide for the establishment and functions of the Advisory Panel on indigenous knowledge; to provide for access and conditions of access to knowledge of indigenous communities; to provide for the recognition of prior learning; to provide for the facilitation and coordination of indigenous knowledge-based innovation; and to provide for matters incidental thereto.<sup>53</sup>

### (a) Methodology

This paper followed a systematic qualitative approach to examine the role of coastal indigenous communities in circular economy (CE) practices. The methodology consists of three key phases: literature extraction and assessment, heuristic analysis, and iterative validation.

#### *Phase 1: Literature extraction and assessment*

To answer the research question on the role of indigenous and coastal communities in circular economy practices, the paper employed a structured literature review. The main concepts of the search included key terms such as coastal communities, waste generation and waste management, ocean pollution,

<sup>52</sup> J H Mzimela & I Moyo 'On the efficacy of indigenous knowledge systems in responding to the Covid-19 pandemic: Unsettling coloniality' (2024) *International Journal of Environmental Research and Public Health* 21, no. 6: 731 available at <https://doi.org/10.3390/ijerph21060731>

<sup>53</sup> Ibid.

indigenous knowledge, human rights, sustainable livelihoods and circular economy. Data was systematically documented using a data extraction template which highlighted the different studies, authors, time periods and the key outcomes and arguments.

### *Phase 2: Heuristic analysis*

A qualitative heuristic approach was used to discover trends and debates about circular economy within the context of indigenous and coastal communities. During this phase, the paper highlighted the relationship between circular economy and ocean pollution, particularly emphasising the opportunities of which coastal and indigenous communities have taken advantage. These opportunities include the rise of informal waste picking as a strategy that minimises wasted while maintaining livelihoods in a sustainable way. patterns and relationships between indigenous-led CE practices and sustainability objectives.

### *Phase 3: Iterative validation and reliability measures*

To improve accuracy and minimise bias, data was looked at from different lenses that added more literature. The data was validated through rounds of internal peer review by other researchers and reassessment was conducted to ensure consistency.

## VI FINDINGS AND DISCUSSION

This section brings together the discussions noted in the previous sections to dissect the key findings and discussions that came from the research. The analysis of this paper pulled out key thematic areas that serve as findings. This paper emphasised that circular economy principles are embodied by traditional knowledge systems and day-to-day practices of coastal and indigenous communities.<sup>54</sup> However, this body of knowledge is usually underrepresented in mainstream research and policy frameworks.<sup>55</sup> As mentioned, the findings are

<sup>54</sup> S Shaffer, M Ruckstuhl & M Amlin et al 'Island and Indigenous systems of circularity: How Hawaii can inform the development of universal circular economy policy goals' (2024) 28(1) *Ecology & Society* 9.

<sup>55</sup> N Flores *Indigenous Wisdom and Circular Economy: When Indigenous Relational Economy Theory Meets Western Sustainability and Circular*

presented around five thematic areas, namely, (1) indigenous knowledge and CE practices; (2) ocean pollution and waste management; (3) integration of traditional knowledge; (4) community engagement; and (5) economic resilience and policy considerations.

### **(a) Indigenous knowledge and CE practices**

Although circular economy is universally posed as a new or modern strategy for sustainability, its original underlying principles have existed and been adhered to by indigenous people and coastal communities.<sup>56</sup> This paper argues that, despite these decades-old practices, indigenous knowledge is most often avoided by mainstream modern circular economy debates and discourses.<sup>57</sup> Such debates revolve mostly on technological and industrial advancements, in total disregard to indigenous centred alternatives to solutions for sustainability. This paper recognises the need for a more general circular economy conversation and the incorporation of indigenous knowledge into policy responses.<sup>58</sup>

In order to determine the contribution of indigenous coastal communities to circular economy activities, SWOT analysis was employed.<sup>59</sup> This systematic method describes the major Strengths, Weaknesses, Opportunities, and Threats for the incorporation of indigenous knowledge into sustainable economic systems. The analysis gives a broad outlook on

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*Economies* (Interview: Kogod School of Business, American University, 17 December 2024) available at <https://kogod.american.edu/news/indigenous-wisdom-and-circular-economy/> (accessed 5 February 2026).

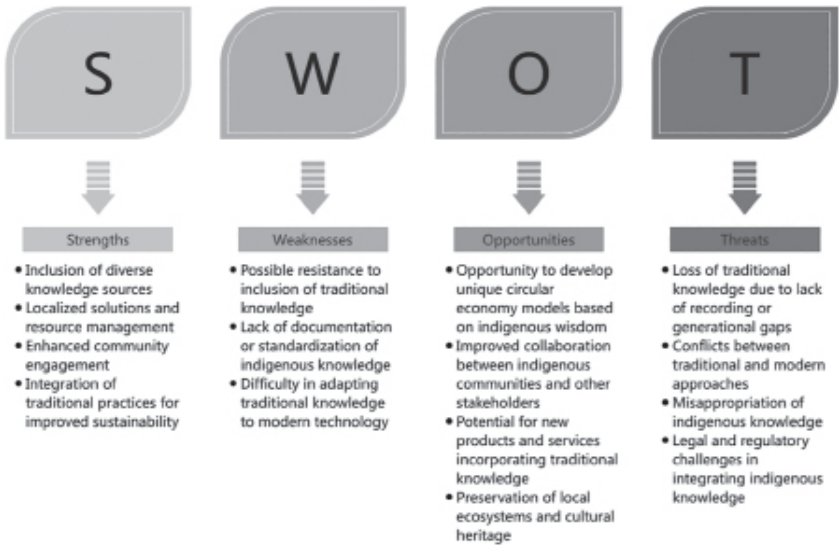
<sup>56</sup> Cultural Survival 'Returning to Circular Economies Rooted in Indigenous Values' (June 2022) *Cultural Survival Quarterly* available at <https://www.culturalsurvival.org/publications/cultural-survival-quarterly/returning-circular-economies-rooted-indigenous-values> (accessed 5 February 2026).

<sup>57</sup> B Donovan 'Unlocking Indigenous potential in mining regions: Circular economy' (OECD *Cogito Blog*, 19 October 2023) available at <https://oecdcoigito.blog/2023/10/19/unlocking-the-potential-of-indigenous-knowledge-in-mining-regions-circular-economy/> (accessed 5 February 2026).

<sup>58</sup> United Nations Development Programme (UNDP), A Craigen 'For a truly circular economy, we need to listen to indigenous voices' (*UNDP Blog*, November 2021) available at <https://www.undp.org/blog/truly-circular-economy-we-need-listen-indigenous-voices> (accessed 5 February 2026).

<sup>59</sup> S Sharma, B C Chattopadhyay & T Sharma 'Indigenous knowledge systems and sustainable development' (2021) *Current Science*.

determinants of initiatives for an indigenous-driven circular economy and their long-term sustainability, as indicated in Figure 1 below.



**Figure 1:** SWOT analysis for the incorporation of indigenous knowledge into sustainable economic systems

**(b) Ocean pollution and waste management**

Coastal and indigenous communities are faced with ocean pollution, which is a threat to marine life and community livelihoods. To mitigate this, an opportunity for informal waste pickers has emerged.<sup>60</sup> This practice is strongly linked to circular economy practices because it involves the process of collecting, sorting, and repurposing waste materials.<sup>61</sup> This form has become a reliable form of income generation. This however often lacks support and recognition in formal waste management systems.<sup>62</sup>

<sup>60</sup> WIEGO Waste Pickers (2025) available at <https://www.wiego.org/informal-economy/occupational-groups/waste-pickers/> (accessed 5 February 2026).

<sup>61</sup> M A Wilson, C Howarth & C Sova ‘From waste pickers to producers: an inclusive circular economy solution through development of cooperatives in waste management’ (2021) 13(16) *Sustainability* 8925.

<sup>62</sup> United Nations Development Programme (UNDP), S Chen ‘Unsung heroes: Four things policymakers can do to empower informal waste workers’ (*UNDP Blog*, December 2023) available at <https://www.undp.org>.

The paper argues that the formal inclusion of informal waste pickers has the potential to enhance environmental protection while maintaining sustainable livelihood. To achieve a holistic approach to minimising marine pollution through the principles of circular economy, this paper recommends integrating informal practices and indigenous knowledge into national waste management frameworks.<sup>63</sup>

### **(c) Policy considerations for an inclusive circular economy**

As briefly mentioned above, the findings of this study highlight the necessity of policy frameworks that reflect traditional waste management practices and knowledge.<sup>64</sup> The current state of knowledge often prioritises industrial and large-scale solutions with little to no presence of grassroots innovations. This paper recommends a shift towards a more participatory and bottom-up approach to close the gap.<sup>65</sup> A bottom-up approach is a key approach for achieving circularity, there is evidence that when local communities are seen as important role players in any development approach, the results always yield a sense of ownership and stewardship.<sup>66</sup>

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*org/blog/unsung-heroes-four-things-policymakers-can-do-empower-informal-waste-workers* (accessed 5 February 2026).

<sup>63</sup> S Baidoo & C Aidoo 'Indigenous traditional knowledge for cleaner waste systems and sustainable waste management system in Ghana' (2024) *ScienceDirect* available at <https://www.sciencedirect.com/science/article/pii/S277291252400037X> (accessed 5 February 2026).

<sup>64</sup> United Nations Development Programme (UNDP) 'How indigenous communities in Chile can inspire global action on the circular economy' (UNDP News, June 2022) available at <https://www.undp.org/news/how-indigenous-communities-chile-can-inspire-global-action-circular-economy> (accessed 5 February 2026).

<sup>65</sup> Institute for Global Environmental Strategies Bottom-up global environmental governance (submission to UNFCCC Standing Committee on Finance, 2019) available at <https://unfccc.int/sites/default/files/resource/Institute%20for%20Global%20Environmental%20Strategies.pdf> (accessed 5 February 2026).

<sup>66</sup> CircularEconomyAlliance 'Building Sustainable Communities: Engaging and Mobilising for Circular Practices' *Circular Economy Alliance* (4 September 2023) available at <https://circulareconomyalliance.com/cea-blogs/building-sustainable-communities-engaging-and-mobilising-for-circular-practices/> (accessed 5 February 2026).

#### (d) Economic resilience and policy considerations

Circular economy practices have been praised for providing economic opportunities through job creation in recycling, sustainable product development, and eco-tourism.<sup>67</sup> Most coastal communities have created marketable goods using recycled materials and generating income while minimising waste.<sup>68</sup>

This paper urges policymakers to support these small and indigenous-centred business initiatives. There are many ways in which the government could promote and support these initiatives such as funding, skills development and capacity building programmes and fair-trade certification for eco-friendly products.<sup>69</sup>

### VII PROPOSED FRAMEWORK FOR INCORPORATING INDIGENOUS COASTAL KNOWLEDGE INTO MAINSTREAM FRAMEWORKS

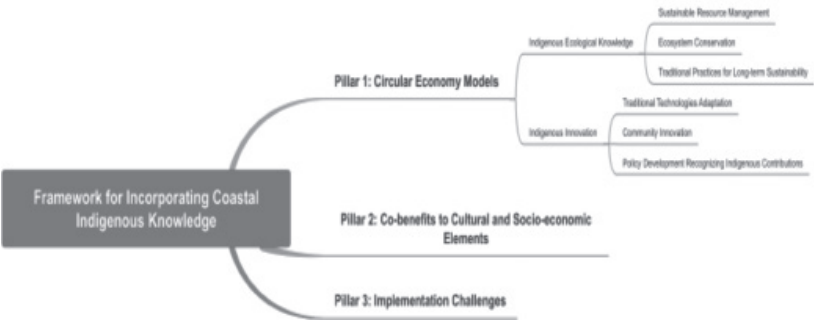
This research presents a conceptual model with the intention to incorporate indigenous coastal knowledge into general sustainability and circular economy models.<sup>70</sup> This proposed framework identifies the underlying elements, enabling factors, and anticipated results of such integration efforts. It takes into account indigenous practices, values, and environmental knowledge and also considers policy impact, economic condition, and environmental factors. The interlinked elements of this framework are presented in Figure 2 below.

<sup>67</sup> M L Gall, M J K Wiener & F Chagas de Oliveira et al 'Exploring the integration of urban organic waste into local, decentralized recycling systems in Kenya' (2020) *Journal of Cleaner Production*.

<sup>68</sup> Global Solutions Initiative, A Phillips & Y Nkgowe 'Leveraging Indigenous Knowledge for a Resilient Circular Economy: Lessons from Rwanda's Circular Economy for a Resilient Future' (April 2025) available at <https://www.global-solutions-initiative.org/article/leveraging-indigenous-knowledge-for-a-resilient-circular-economy/> (accessed 5 February 2026).

<sup>69</sup> The Circulate Initiative 'From exploitation to empowerment: Ensuring fair compensation for informal waste workers' (26 August 2025) available at <https://www.thecirculateinitiative.org/blog/from-exploitation-to-empowerment-ensuring-fair-compensation-for-informal-waste-workers/> (accessed 5 February 2026).

<sup>70</sup> R K Beamer 'A brief history of Hawaiian political economy' in R K Beamer *No Mākou Ka Mana: Liberating the Nation* (2020) 31–52.



**Figure 2:** Proposed framework for incorporating coastal indigenous knowledge into mainstream policies

Figure 2 illustrates the framework for the orderly incorporation of coastal indigenous knowledge into modern environmental and economic systems. The framework is supported by three pillars: circular economy models; co-benefits to cultural and socio-economic elements; and implementation challenges. The circular economy model stresses the significance of indigenous ecological knowledge, indigenous innovation, and their incorporation into mainstream processes in the quest for sustainability.<sup>71</sup> Traditional ecological knowledge is key to sustainable resource management, ecosystem conservation, and traditional practices that promote long-term natural resource sustainability.<sup>72</sup> Indigenous innovation encompasses the innovation of traditional technologies as an adaptation measure to evolving environmental conditions, community innovation, and policy development that recognises indigenous contributions to sustainability. Additionally, mainstream inclusion is needed in terms of extensive social acceptance and necessitates indigenous and non-indigenous stakeholders uniting, policy alignment, and education actions towards the

<sup>71</sup> United Nations Development Programme Ghana, C Adodoadji-Dogbe & F Farouta ‘Harnessing innovation and indigenous knowledge for zero waste’ (UNDP Ghana Blog, March 2024) available at <https://www.undp.org/ghana/blog/harnessing-innovation-and-indigenous-knowledge-zero-waste> (accessed 5 February 2026).

<sup>72</sup> L Bansal, M Jain, I Garg & M Srivastava ‘Indigenous communities and sustainable development: A review and research agenda’ (2024) 43 *Global Business and Organizational Excellence* 1–17.

facilitation of heightened awareness of indigenous knowledge systems.<sup>73</sup>

Apart from the environmental gains, the incorporation of IK offers significant cultural and socio-economic benefits to coastal communities. Foremost among these are enhanced livelihoods, primarily through sustainable harvesting, Indigenous crafts, and eco-tourism ventures, all of which enhance economic growth while conserving cultural heritage.<sup>74</sup> Second, this integration prioritises cultural identity through language reclamation and social unity among indigenous communities.<sup>75</sup> The concepts of empowerment and capacity development are at the core of this process, as they strengthen local leadership, encourage self-sufficiency, and enable communities to play active roles in decision-making processes that influence their environment and socio-economic well-being. Collectively, these elements determine the resilience and sustainability of indigenous coastal communities.

There are many obstacles to indigenous knowledge being properly incorporated into mainstream environmental and economic frameworks. Institutional and legal impediments, such as land rights and the acknowledgement of indigenous systems of governance, still restrict the full participation of indigenous peoples in environmental management. Moreover, conflicts between traditional life and contemporary development trends, including resource development and mega-infrastructure projects, also threaten traditional livelihoods and environmental balance greatly. Global warming intensifies the issues since increased sea levels, coastal erosion, and habitat decline endanger indigenous life. Meeting these challenges requires the development of inclusive policy frameworks, legislative recognition of IK systems, and cooperation among indigenous communities, policymakers, and stakeholders.

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<sup>73</sup> T Wadhvani *Using old learnings for a new thriving economy* (ACE Hub, March 2023) available at <https://acehub.org.au/news/using-old-learnings-for-a-new-thriving-economy> (accessed 5 February 2026).

<sup>74</sup> British Columbia Yukon Textbooks 'Circular economy and life cycle approach – greening and indigenizing the carpentry trade' available at <https://pressbooks.bccampus.ca/cicancarpentryproject/chapter/circular-economy-and-life-cycle-approach/> (accessed 5 February 2026).

<sup>75</sup> Ibid.

## VIII CONCLUSION

There's a longstanding legacy of inequitable distribution of ocean management strategies' benefits and opportunities. Research shows indigenous and local communities are often disadvantaged, with policies denying their fishing rights, restricting their access to coastal areas due to growing tourism and economic development and excluding them from ocean decision-making.<sup>76</sup> These inequities persist due to active political and economic marginalisation, reinforced by legal and governance frameworks. Policymakers also tend to prioritise economic and scientific views over indigenous and traditional knowledge systems.<sup>77</sup> Not only are these realities unjust, but they are also in direct conflict with sustainable and equitable ocean planning.

The significant role of indigenous and traditional knowledge systems in stewarding the ocean cannot be ignored. Many indigenous peoples have a deep connection to their surrounding environment that has been developed and verified over millennia.<sup>78</sup> Indigenous knowledge systems often reflect a holistic and systematic way of thinking based on intimate relationships between humans and other species. These aspects of co-existing with the marine environment are essential for halting extractive or overly exploitive approaches to ocean governance.<sup>79</sup>

The role of coastal indigenous communities in circular economy practices is multifaceted. This paper has showed that they offer key insights into sustainable resource management that have the potential to influence global strategies.<sup>80</sup> However, indigenous and coastal communities continue facing challenges such as systemic barriers that minimises the full realisation of these practices. To promote the effectiveness of circular economy initiatives, policymakers need to prioritise the importance of collaboration with indigenous and coastal

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<sup>76</sup> E Spann 'Participatory action research with Indigenous communities' (2018) *Social Justice Research*.

<sup>77</sup> Ibid.

<sup>78</sup> Op cit note 39.

<sup>79</sup> L Hiwasaki *Indigenous Knowledge Is Key to Better Ocean Management* (2024) World Resources Institute.

<sup>80</sup> R Browning, T J Beymer-Farris & J Seay 'A local decentralized circular economy of the material commons: The emerging waste picker formalization landscape in the Global South' (2021) 156 *Journal of Cleaner Production* 127069.

communities, ensuring their voices are included in decision-making processes through a bottom-up approach.

The findings presented stress that a circular economy is not a novel concept for coastal indigenous communities. Most principles of contemporary circular economy frameworks have long been a part of traditional practices for decades. Instead of introducing entirely new systems, there should be focus on amplifying and integrating these existing approaches.

## NOTES TO CONTRIBUTORS

### I INTRODUCTION

The editors of *Journal of Ocean Governance in Africa (JOGA)* – *Amalwandle Ethu* ('Our Seas' in isiXhosa) under the editorship of the South African International Maritime Institute (SAIMI), welcome the submission of manuscripts in English for publication, provided that the topic under discussion relates to ocean governance, including the law of the sea and maritime law, as it applies either in the whole African continent, in a specific African region or in one or more African States.

*JOGA* accepts manuscripts of four types. These are:

- (a) **Articles.** Articles are the feature pieces of each issue of *JOGA*. They provide a detailed analysis of the topic under discussion. Articles should not exceed 12 000 words (including references). Longer manuscripts will only be considered in exceptional circumstances. All references must be footnoted. Each article must be accompanied by an abstract of not more than 200 words. The abstract should summarise rather than introduce the article. In addition, the article should include appropriate keywords.
- (b) **Notes.** Notes are shorter, more focused pieces. They may discuss any specific issue, development, event, instrument or decision of interest to ocean governance in Africa. Notes should be between 3 000 and 8 000 words long. Longer notes are not considered. Notes do not include an abstract or keywords. All references must be footnoted.
- (c) **Updates and reports.** Updates are brief descriptions of legal or policy developments which have taken place at the continental, regional or domestic level. Reports are brief summaries of events that have taken place or research that has been undertaken or is in progress. Updates and reports should not exceed 3 000 words. They do not include an abstract or keywords. All references must be footnoted.
- (d) **Book reviews.** Book reviews are critical discussions of scholarly books on any topic relating directly or indirectly to ocean governance as it applies either in the whole African continent, in a specific African region or in one or more African States. Reviews should be between 2 000 and 5 000 words long. Longer reviews are not considered. All references must be footnoted.

A manuscript will be considered for publication:

- (a) only on the assurance that it has not, in whole, in part or in substance, been published or submitted for publication elsewhere;
- (b) on the understanding that it may be submitted in confidence to at least two expert referees for evaluation; and
- (c) on the understanding that the editors reserve the right to make whatever changes they consider desirable:
  - (i) to bring the manuscript into the house style of *JOGA*;
  - (ii) to eliminate errors of typing, grammar, syntax, punctuation, spelling, idiom and the like;
  - (iii) to eliminate ambiguity, illogicality, tautology, circumlocution and redundancy;
  - (iv) to produce accuracy and coherence;
  - (v) to improve the mode of expression and style of writing; and
  - (vi) to avoid possible criminal or civil liability.

Authors are required to prepare their manuscripts very carefully to avoid the need for the editors to exercise extensively their right to make changes. In particular, authors are asked to acquaint themselves with the house style of *JOGA* and to check their manuscripts carefully against the guidelines that follow.

NOTE: Regrettably, a manuscript that does not accord with the house style of *JOGA* will be returned to the author(s) immediately, with a request that the manuscript be amended to conform to the house style. The quality of the piece will normally not be assessed before this has occurred.

## II HOUSE STYLE

### (a) General

What follows in this document are the stylistic requirements that most commonly require the attention of the authors and editors of *JOGA*. This document is merely a general guide because it is not possible to cover every possible referencing and stylistic issue. Where this document does not provide assistance, authors are requested to either:

- (i) consult previous issues of *JOGA* and to see how a similar stylistic issue has been dealt with;

- (ii) consult the main *House Style for Juta Publications*, which may be found at <https://www.jutajournals.co.za/jolga-style-guide/>; or
- (iii) contact the editors for advice at Joga@saimi.co.za (the email address for the editing team).

## **(b) Matters of presentation and layout**

### *(i) Page layout*

The page should have 2.54 cm margins all round (top, bottom, left, right). Line spacing should be 1.15. The text must be right-justified.

All paragraphs (including those that come after long quotations) should be indented except the very first paragraph of a piece and any paragraph appearing immediately after a heading, subheading or sub-subheading.

There is no space after each paragraph except when the paragraph is followed by a heading (in which case there must be two line spaces after the paragraph) or a subheading or sub-subheading (in which case there must be one line space after the paragraph).

### *(ii) Font and type*

A Times New Roman font is used by JOGA. The text must be in 12 point font. An 11 point font must be used for all indented quotations, ie long quotations of more than 40 words, which are preceded and followed by a 6 point space. Footnotes must be in 10 point font, with line spacing being 1.00 and the text being right-justified.

Italics are used for emphasis, for case names, names of journals and titles of books, plays, operas and films, names of ships and the titles of paintings and other works of art as well as for web sites and other electronic references. Italics are *not* used for foreign words. All italics in direct quotations are reproduced, however.

### *(iii) Titles of articles, notes, updates and book reviews*

Titles of articles are in italics, right-aligned and always in caps in 14 point font. A line is left between the title and the author's initial(s) and surname, which are not in italics, are right-aligned and in 12 point font. The author's degrees are given in a footnote to the symbol † (and, in the case of a second author, ††) and

may be followed, in a separate sentence, by acknowledgements. The author's designation and affiliation appear immediately under his or her name, in italics, 12 point font and sentence case.

Titles of notes are in caps with, if applicable, case names in italics on a separate line. A line is left between the title and the author's initial(s) and surname, which are again in caps. The author's designation appears immediately under the name, in italics and sentence case. Degrees are not given but acknowledgements may be made in a footnote to the symbol † appearing after the author's surname.

Titles of updates are left-aligned and in bold. The first line indicates the relevant State, region or organisation in caps. The second line is in sentence case and contains the title of the update, which may be limited to the title of the relevant legal or policy instrument(s). The author's initial(s), surname, designation and affiliation are given in a footnote to the symbol †.

Titles of book reviews are left-aligned. The first line contains the title of the review in sentence case and in bold. The second line contains the reference to the book reviewed in sentence case and in the format in which the reference would appear if it were in a footnote with, in addition, the thirteen digits ISBN number. The initial(s), surname, designation and affiliation of the author of the review are given in a footnote to the symbol †.

#### *(iv) Headings*

All headings are left-aligned (other than headings of sections of *JOGA*). Main headings are in caps and bold. The headings in articles are numbered in roman numerals (e.g. 'I INTRODUCTION'). Subheadings and sub-subheadings are in sentence case. (a), (b), (c) are used for subheadings, which must be in bold. (i), (ii), (iii) are used for sub-subheadings, which must be in italics. Authors should avoid, wherever possible, going beyond sub-subheadings.

#### *(v) Lists*

(a), (b), (c) should be used for a list under a main heading and (i), (ii), (iii) should be used for a list under a subheading. Bullet points should only be used under sub-subheadings. Full sentences should start with a cap and end with a full stop. Phrases must start with lower case and end with a semi-colon (and a full stop right at the end of the list).

We use ‘first’ (not firstly); thereafter ‘secondly’, ‘thirdly’.

**(c) Spelling, grammar and other related matters of style or convention**

*(i) Spelling and capital letters*

*JOGA* uses the ‘s’ form of English spelling (e.g. recognise, emphasise, analyse, realise, organisation, but assets are ‘realized’). We say ‘in so far as’ and not ‘insofar as’; ‘moneys’ and never ‘monies’.

Capital letters are used in all proper names (e.g. South Africa, Constitutional Court). They are also used in the English official title of legislation and international instruments as well as to distinguish between two different meanings of a word (e.g. ‘Act’ (the statute) and ‘act’ (the deed); ‘Agreement’ (the treaty) and ‘agreement’ (the act of agreeing); ‘Constitution’ (the supreme statute) and ‘constitution’ (the act of constituting); ‘Convention’ (the treaty) and ‘convention’ (the general agreement); ‘Protocol’ (the treaty) and ‘protocol’ (the formalities of a procedure); ‘State’ (the country) and ‘state’ (the condition or position)). Finally, capital letters are used by tradition in a few other cases, such as ‘Parliament’ (the highest legislative body) and ‘President’ (the head of a State).

Please note: Caps are not used for court, appeal court, judge, judge of appeal, committee, board, council, municipality, province, premier, etc. (When in doubt, use lower case.)

**Examples:**

The appeal was upheld by the Supreme Court of Appeal in 2011.

It is likely that the appeal court will turn down the appeal. In terms of art 3 of the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water,

...

The Nelson Mandela Bay Municipality is facing a number of challenges. Nevertheless, the Municipality has recorded several successes. Likewise, most other municipalities have ...

... within the jurisdiction of the Minister of Home Affairs. No other minister may ...

... the already-ratified Conventions could be given effect ...

... there has been a 'follow-up' agreement to the 1990 Treaty in the form of the 1998 Protocol ...

*(ii) Numbers, dates, percentages, currencies*

Use words for all numbers between one and twenty and for all approximations ('about two hundred years', 'a thousand ways'). Numbers higher than twenty must be in figures.

All numbers in tables and graphs are in figures. So are legislative provisions ('par 4'), ages ('5 years old'), percentages (*JOGA* uses the words 'per cent' in the text ('10.4 per cent'), and only uses the figure % in footnotes, tables and when it appears in a quote) as well as measurements, quantities and amounts ('12 nm', '6 cm', '40 km', 'ZAR 5 million'). It is advisable also to use figures where a lot of numbers appear in a piece, as a consistent style looks better. A space (not a comma) is used in large numbers, as for instance in '42 567'. Where a 'rand and cents' figure is used, the cents should be connoted by a short hyphen ('ZAR 456-45'). For other currencies, use USD, GBP, €, ¥.

A sentence should never begin with figures, ie recast the sentence or use words.

Dates and centuries: 'on the 4th of July 2008' (but 'on 4 July 2008' in Internet references and 'of 4 July 2008' in references to legal instruments); 'in the 1980s' (not 1980's – there is no apostrophe); 'in the 20th century'.

*JOGA* uses the long dash – (known in the publishing trade as the 'em rule') where the author wishes either: (i) to tack a word, phrase or clause onto the end of a sentence for emphasis; or (ii) to mark off a 'by the way' remark in much the same way as a parenthesis, but generally to give it greater emphasis.

**Examples:**

His expertise and loyalty are available – at a price.

A policy shift is necessary to protect third parties – possibly unsophisticated entrepreneurs – who enter into pre-incorporation contracts.

In other circumstances, the short hyphen [-] must be used.

**Examples:**

Jean-Jacques.

Seven-year-old boy.

*(iv) Quotations*

Quotations are reproduced exactly, including all original italics and original punctuation, notwithstanding that the original forms might not comply with the *JOGA* style.

Quotations appear in single quotation marks. Quotations within quotations appear in double quotation marks. Back to single for the rare quotation within a quotation within a quotation.

Short quotations appear as part of the text. Long quotations, ie quotations of more than 40 words, are isolated from the text by being indented from both the left margin and the right margin.

Whenever a quotation is introduced by other words, the quotation should start with lower case (using square brackets to indicate an alteration where necessary). Ellipses need not be used at the start of a quotation but must be used in the middle and at the end of a quotation to indicate missing words. We use three dots for any missing word(s). We do not include in a quotation of up to 40 words the full stop at the end of that quotation. (Thus ‘right [...]’. and not ‘right [...].’)

**(d) Requirements for referencing standard legal sources***(i) International instruments*

A reference to an international instrument must include the year of adoption and official name of the instrument (if not mentioned in the text) as well as the reference to where the instrument has been published, including the *UNTS*, *ILM* and *LOS* references, if applicable. (See below for referencing style in the case where the instrument is only available on the Internet.) In addition, the reference must mention: the date of adoption (date, month and year); the date when the instrument came into effect or the fact that the instrument has not come into effect (‘EIF: not yet’); and the status of the instrument with regard to the State(s) concerned (e.g. ‘signed in 2002’ or ‘ratified in 2010’). In footnotes, ‘UNGA’ is used instead of ‘UN General Assembly’ and ‘UNSC’ instead of ‘UN Security Council’.

**Examples:**

1982 UN Convention on the Law of the Sea [1833 *UNTS* 3, (1982) 21 *ILM* 1245; adopted: 10 December 1982; EIF: 16 November 1994]. South Africa ratified the Convention in 1997.

2000 Constitutive Act of the African Union [2158 *UNTS* 3; adopted: 11 July 2000; EIF: 26 May 2001]. South Africa ratified the Act in 2003.

Please note: The title of a Protocol must include the title of the instrument to which the Protocol constitutes an addition (e.g. ‘the 2008 Protocol to the 2000 Constitutive Act of the African Union on the Statute of the African Court of Justice and Human Rights’).

Please also note: Do not abbreviate the word ‘section’ when it is used to refer to: (a) a division within one of the seventeen parts of the UN Convention on the Law of the Sea; or (b) any similar division within another instrument.

*(ii) Cases*

All case names are to appear in italics. A shortened name should be used consistently in the main text, with the full name and citation being given in a footnote the first time the case is referred to. Additional parties are referred to using ‘and Another’ or ‘and Others’).

**Examples:**

*M/V ‘Saiga’ (No 2) (Saint Vincent and the Grenadines v Guinea)* 1999 ITLOS Reports 10 at 23.

*Broad (Pty) Ltd v Thin* 2008 (4) SA 456 (SCA) 15.

Page references (with marginal letters) may be given. Paragraph references must be provided when paragraphs are numbered. If the case is not reported in a published set of law reports (either at all, or has not as yet been published in this manner due to the decision being very recent), the author should please provide some form of citation for the purposes of reference. This could be a JOL or JDR citation, or a neutral citation used by the courts and SAFLII.

With the proliferation of electronic databases and neutral citations, there is less and less call for an author to refer to a case as being unreported. However, where it is necessary to do so, the *JOGA* uses two basic styles for unreported cases, the date being the date of judgment: '*Dlamini v Jacobs* (NPD) unreported case no 98/05 of 3 August 2006' or '*Dlamini v Jacobs* (NPD) unreported case no 98/05 (3 August 2006)'. In addition, the placement of the word 'unreported' may be varied in accordance with the structure of the sentence, e.g. 'in the unreported case of *Dlamini v Jacobs* (NPD) case no 98/05 of 3 August 2006 ...'.

A full set of standard case abbreviations and citations may be found in the *House Style for Juta Publications*.

### (iii) Books

All the author's initials and surname must be given as they appear on the title page of the book or on the title page of the chapter / relevant page of the article. For instance, 'John D Smith' must appear as 'J D Smith' and not as 'John D Smith' or 'J Smith'.

In a reference, the co-authors of any work (book, article, chapter, whatever) take an ampersand (e.g. 'J Smith & M Dlamini'). We cite up to three authors (e.g. 'J Smith, M Dlamini & R Pillay'). Thereafter use 'et al' (e.g. 'J Smith et al'). Avoid as much as possible to refer to authors in the text (rather give whatever credit is required in a footnote).

If the named persons are the authors of the book, then no more need be said. But if these are the editors, then the abbreviation (ed) or (eds) must appear after the last surname.

Book titles take the title case and appear in italics. If it is the first edition of the book, then no edition need be referred to; it will be assumed that it is the first edition. If the book is in an edition after the first, the number of the edition must appear after the title ('2 ed', '3 ed', '4 ed', not '2nd ed', '3rd ed', '4th ed').

The year of publication must appear in brackets after the title (in the case of first editions) or edition.

The precise page number(s) where the authority was found comes next, if necessary. If the book operates by numbered paragraphs (which may be connoted either by 'par' or by '\$'), then this will be a sufficient reference. If it is necessary to refer to both paragraph and page, then do so as follows: 'par 27 at 160'. This latter method should be used only where absolutely necessary. Where the reference is generally to a chapter in

the book, this should be indicated by using the whole word (not 'ch').

**Examples:**

John D Smith & Sipho Dlamini *Hand's Law of Arbitration* 5 ed (2006) 115.

P Q R Boberg *The Law of Delict: Aquilian Liability* (1984) chapter 3.

*(iv) Chapters in books*

Where an author refers to a chapter in a book written by a specific author (most commonly in a book constituted of chapters by experts on a common theme and which have been collected and edited by a general editor or editors), then both the chapter and the book must be referenced in full the first time the work is cited.

The author must be referred to exactly as he or she was in the book and the titles of chapters in collections are always in sentence case and roman. The book is to be cited as above.

**Example:**

M Bear & D Bear 'Too hot, too cold, just right?' in M Goldilocks (ed) *The Politics of Cookery* 3 ed (2004) 23–27.

Some works (especially encyclopaedias and loose-leaf books) can give problems. Try to follow this style:

A J Kerr 'Lease' in W A Joubert (founding ed) *The Law of South Africa* (1999) XIV first reissue par 164.

Joe Bloggs 'Executive government' in S Woolman et al (eds) *Constitutional Law of South Africa* 2 ed (Service 12) 6-18.

*(v) Journal articles*

All the author's initials and surname must appear exactly as they appear in the journal being cited (the rules apply as for books).

The title of the article must appear in sentence case, in roman, and within single inverted commas.

The year (in brackets, except where there is no volume number), the volume (where relevant), the issue (in brackets and only where page numbers start again at page 1 in each

issue) and the title of the journal must be supplied. The title of the journal must be in italics.

The names of journals should only be abbreviated in the following cases:

|        |                                                              |
|--------|--------------------------------------------------------------|
| AGR    | African Geographical Review                                  |
| AJICL  | African Journal of International and Comparative Law         |
| AJIL   | American Journal of International Law                        |
| AJLS   | African Journal of Legal Studies                             |
| AJMS   | African Journal of Marine Science                            |
| ASR    | African Security Review                                      |
| AYIL   | African Yearbook of International Law                        |
| CILSA  | Comparative and International Law Journal of Southern Africa |
| EJIL   | European Journal of International Law                        |
| ICLQ   | International and Comparative Law Quarterly                  |
| IJMCL  | International Journal of Marine and Coastal Law              |
| ILM    | International Legal Materials                                |
| JAL    | Journal of African Law                                       |
| JAUS   | Journal of African Union Studies                             |
| JIML   | Journal of International Maritime Law                        |
| JMA    | World Maritime University Journal of Maritime Affairs        |
| JMLC   | Journal of Maritime Law and Commerce                         |
| JSAS   | Journal of Southern African Studies                          |
| LA     | Law in Africa                                                |
| LMLJ   | Loyola Maritime Law Journal                                  |
| MLJ    | Maritime Law Journal                                         |
| MP     | Marine Policy                                                |
| OCLJ   | Ocean and Coastal Law Journal                                |
| OCM    | Ocean and Coastal Management                                 |
| ODIL   | Ocean Development and International Law                      |
| OY     | Ocean Yearbook                                               |
| RAAMT  | Revue Africaine des Affaires Maritimes et des Transports     |
| SAJIA  | South African Journal of International Affairs               |
| SAJMET | South African Journal of Maritime Education and Training     |
| SAJMS  | South African Journal of Marine Science                      |
| SAYIL  | South African Yearbook of International Law                  |

TMLJ        Tulane Maritime Law Journal  
 UNTS        United Nations Treaty Series

The numbers of the first and last pages always need to be indicated, followed, if applicable, by the number of the page(s) being referred to.

**Examples:**

G Abraham 'Lines upon maps: Africa and the sanctity of African boundaries' (2007) 15 *AJICL* 61–82.

E de Coning & E Witbooi 'Towards a new "fisheries crime" paradigm: South Africa as an illustrative example' (2015) 60 *MP* 208–215 at 211.

*(vi) Theses*

D B Hamman *River and Maritime Boundaries between South Africa and Namibia* (unpublished PhD thesis, University of Cape Town, 1991) 134.

*(vii) Newspapers*

Angela Jones 'Nuclear reactor in trouble' *The Star* 24 May 2005 at 2.

*(viii) White papers, etc*

The White Paper on Energy Policy (GN 3007 in *GG* 19606 of 17 December 1998).

*(ix) Law Commission papers*

South African Law Commission Issue Paper 20 (Project 123) *Protected Disclosures* (2002) par 3.

South African Law Commission Discussion Paper 107 (Project 123) *Protected Disclosures* (2004) par 56.

South African Law Commission (Project 123) *Report on Protected Disclosures* (2007).

*(x) The South African Constitution*

The long citation (used when referring to the Constitution for the first time) is simply 'Constitution of the Republic of South Africa, 1996'. The interim Constitution is 'the Constitution of the Republic of South Africa Act, 1993 (Act 200 of 1993)'.

*(xi) Legislation*

Give the short title and year in the text (e.g. ‘the Maritime Zones Act, 1994’ or ‘the Maritime Zones Act, 1994 (MZA)’ (when you are referring to the Act and/or its specific provisions more than once)) and indicate the number and year of the statute in a footnote (e.g. ‘Act 15 of 1994’). Thereafter, use the acronym (e.g. ‘Section 4 of the MZA’, ‘See s 5–6 of the MZA’).

Use abbreviations for ‘section’, ‘subsection’, ‘paragraph’, ‘subparagraph’ and ‘article’ (but never at the start of a sentence): section = ‘s’, subsection = ‘ss’, paragraph = ‘par’, subparagraph = ‘subpar’, article = ‘art’. The abbreviations are the same for the plurals. Please note that the above words are not abbreviated when they are not referring to a legislative provision.

Use ‘annex’, ‘appendix’, ‘chapter’, ‘part’, ‘schedule’ and ‘title’.

*(xii) Delegated legislation*

A proclamation is cited as follows: Proc R46 in GG 24567 of 31 January 2003.

Regulations are cited by referring to the notice in which they appear, e.g. ‘the Merchant Shipping (Navigation Bridge Visibility) Regulations, 2004 (GN R1199 in GG 26878 of 15 October 2004)’. A regulation is abbreviated to reg, as in reg 5(1) (but not at the start of a sentence).

*(xiii) Internet references*

Wherever possible, a published and authoritative source should form the basis of a reference. When it is not possible, authors may refer to websites, provided that the authors consider carefully how authoritative the source of the information is before using it.

Where an Internet reference is to be used, it must appear as follows:

**Example:**

African Union ‘Decision on maritime security in Africa’ (AU Doc. EX/CL/Dec. 60 (III) 2003, available at [http://www.au.int/en/sites/default/files/ex%20CL%20DEC%2020%20-%2074%20\(III\)%20\\_E\\_0.pdf](http://www.au.int/en/sites/default/files/ex%20CL%20DEC%2020%20-%2074%20(III)%20_E_0.pdf), accessed on 16 September 2013).

North Atlantic Treaty Organisation *Operation Ocean Shield Fact Sheet* (2012) (available at [http://www.nato.int/nato\\_static/assets/pdf/pdf\\_topics/1889-12\\_Factsheet\\_OOS\\_en.pdf](http://www.nato.int/nato_static/assets/pdf/pdf_topics/1889-12_Factsheet_OOS_en.pdf), accessed on 17 December 2013).

Please note: the URL must appear in italics, in black and must NOT be underlined.

When it is not possible to ascertain the date of the document or page to which one refers, '(no date)' must be used after the title of the document or page.

Where an author has accessed a published source on the Internet (e.g. a journal article accessed through WestLaw), the original citation should be given, and there is no need to refer to the URL. The exceptions to the above rule are newspaper articles accessed from the Internet, or resources such as law commission reports etc. from other countries, which may not be obviously or easily accessible to interested readers. For convenience, authors are strongly encouraged to give a URL reference over and above the reference to the published source.

#### **(e) The use of footnotes**

Authors are encouraged to use footnotes to elaborate on points that would otherwise clutter the main text of the contribution. The other important purpose of footnotes is to provide the relevant references without cluttering the text.

In footnotes, a reference to any authoritative source (which must comply with the house style described above) is given once in full. Apply the relevant requirements for referencing standard legal sources (see (d) above).

Thereafter a book, chapter, journal article, newspaper article, law commission report, thesis will be cited by author(s) and a cross-reference (using 'op cit') to the FIRST footnote, where the full reference appeared. An abbreviated reference to the work may be used to provide further guidance where appropriate (e.g. several of an author's works are cited sporadically in an article).

#### **Examples:**

Smith & Dlamini op cit note 5 at 67.

Dugard *International Law* op cit note 13 at 234.

See Ali op cit note 14 at 33, who expresses ... .

Cases are also cited using the cross-referencing method, but ‘supra’ is used.

**Examples:**

*Nottebohm* supra note 12 par 34.

Supra note 16 at 365G–H.

For consecutive references to the same work, ‘ibid’ is used with or without a page number or paragraph reference as appropriate.

**Examples:**

Ibid.

Ibid at 45.

Ibid par 45.

**(f) Miscellaneous**

A name should appear in full before any acronym is used for it. The acronym must be introduced immediately after the full name it is referring to (e.g. ‘the Benguela Current Commission (BCC) governs ...’). (*JOGA* uses ‘LOSC’ for the 1982 UN Convention on the Law of the Sea and ‘UNCLOS I’, ‘UNCLOS II’ and ‘UNCLOS III’ for the UN conferences on the law of the sea.) However, this does not apply, in the footnotes, to acronyms that are very well known (e.g. AU, BRICS, EAC, ECOWAS, EEZ, EU, FAO, ICJ, ILO, IMO, ITLOS, NGO, OAU, PCA, SADC, UN, UNEP and US or USA).

If at all possible, avoid starting a sentence with an acronym or any other kind of abbreviation.

Where an entire sentence appears in parentheses, the full stop is placed inside the second bracket. (Here an entire sentence is bracketed.)

When giving starting and ending page numbers and paragraph numbers, do not remove figures (e.g. ‘34–35’ and not ‘34–5’).