



**ADDIN**

<https://journal.iainkudus.ac.id/index.php/Addin>

ISSN: 0854-0594; E-ISSN: 2476-9479

Volume 20, Number 1, June 2026: 247-288

DOI: <http://dx.doi.org/10.21043/addin.v20i1.32492>

# **From Verses to Sustainable Fishing: Quranic Foundations for Marine Natural Capital Conservation**

**Chaker Asma**

**University of Jijel, 18000, Algeria**

chaker-asma@univ-jijel.dz

## **Abstract**

The relationship between Islamic principles and environmental sustainability has been extensively explored in contemporary scholarship, with numerous studies examining the Quran's guidance on ecological stewardship and sustainable development. While existing literature has broadly addressed Islam's ethical framework for sustainable development, this paper focuses specifically on marine resources and fisheries as a natural capital within Quranic teachings. By analyzing Quranic verses related to seas, aquatic life, and resource management, this study seeks to establish a theological foundation for sustainable fisheries discourse. This study investigates the Quranic basis for the concept of marine natural capital and its consequent implications for sustainable fisheries governance. The findings indicate a strong potential for alignment between public policy and the environmental ethics promoted in the Quran. This study's findings indicate that effective policy implementation hinges on two intrinsically linked elements: humanity's full embrace of its role as *khalifa* (steward) and the integration of a faith-inspired normative framework. This approach bridges divine revelation with contemporary sustainability challenges, offering Quranically grounded insights for marine conservation. By emphasizing the moral obligations of humans—particularly fishers—as key ecosystem decision-makers, this faith-based model reorients

conservation from external regulation to internalized ethical duty.

**Keywords:** Fishing Resources, Quran, Natural Capital, Sustainable Fishing.

## A. Introduction

Humans, acting as an invasive species, have shaped evolution and reinforced their perceived superiority over non-human creatures. Through their actions—causing extinctions, altering genes, standardizing crops, exterminating species, polluting, and reducing biodiversity—they have imposed a vision of supremacy over other living beings.

Increasing human activities are altering nature, accelerating extinctions and ecosystem declines. According to the IPBES report, most of Earth's surface and oceans face significant changes, with fish stocks overexploited and many species threatened by habitat loss. It highlights compelling facts: 75% of the Earth's surface is significantly altered, 66% of the ocean area is experiencing cumulative impacts, and more than 85% of wetlands have been lost<sup>1</sup>. Since 1900, at least one-fifth of the average abundance of native species in most major terrestrial biomes has been lost, and 680 vertebrate species have disappeared over five centuries<sup>2</sup>. Furthermore, nearly one-third of fish stocks are overexploited, and about one-tenth of the world's

---

<sup>1</sup> IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. S. Díaz, J. Settele, E. S. Brondízio E.S., H. T. Ngo, M. Guèze, J. Agard, A. Arneth, P. Balvanera, K. A. Brauman, S. H. M. Butchart, K. M. A. Chan, L. A. Garibaldi, K. Ichii, J. Liu, S. M. Subramanian, G. F. Midgley, P. Miloslavich, Z. Molnár, D. Obura, A. Pfaff, S. Polasky, A. Purvis, J. Razzaque, B. Reyers, R. Roy Chowdhury, Y. J. Shin, I. J. Visseren-Hamakers, K. J. Willis, and C. N. Zayas (eds.). IPBES secretariat, Bonn, Germany: 28. [https://files.ipbes.net/ipbes-web-prod-public-files/inline/files/ipbes\\_global\\_assessment\\_report\\_summary\\_for\\_policymakers.pdf](https://files.ipbes.net/ipbes-web-prod-public-files/inline/files/ipbes_global_assessment_report_summary_for_policymakers.pdf)

<sup>2</sup> IPBES (2019): 11.

estimated terrestrial species lack sufficient habitat for their long-term survival and are therefore at risk of extinction<sup>3</sup>.

While it is universally acknowledged that humans constitute a part of the universe, the aforementioned statistics underscore actions that can be characterised as deleterious or even detrimental to the environment. Fishing represents a principal economic activity reliant on natural resources, and, despite its vital role for local communities and wider economies, the fisheries sector is associated with significant environmental consequences, including the overexploitation of fish stocks, degradation of seabed, and marine pollution.

Islam encourages harmonious coexistence, elevates humanity, and—through the Quran and Sunnah—guides society and spiritual life toward building a better world.

The Quran is the sacred book that compiles Allah's divine revelations. It covers different dimensions of life on Earth, including social, political, economic, and ecological aspects. Islam is not just a religion; it encompasses all aspects of life, with the Quran providing a comprehensive guidance framework for human conduct.

Research on environmental themes in the Quran often either discusses broad ethical ideas or focuses on specific terrestrial resources, such as agricultural water management. However, there is a clear gap in considering fisheries resources as vital marine natural capital within Islamic ecological frameworks. This paper addresses this by (1) directly positioning marine and fisheries resources as Quranically recognized, and (2) providing a systematic analysis of their theological and ecological role in fisheries governance. By focusing on fisheries as both elements of marine capital and objects of divine concern, the paper establishes a new link in Islamic environmental studies.

---

<sup>3</sup> IPBES (2019): 24.

This paper first examines how the Quran conceptualises seas, fisheries resources, and natural capital, aiming to lay a theoretical foundation for sustainable fisheries. It specifically addresses the following question: How do Quranic verses inform environmental ethics and modern fisheries policy? How can these teachings be interpreted and applied to conserve marine natural capital today?

This paper examines the role of theological discourse in environmental ethics to address ecological concerns, emphasizing the critical importance of human responsibility in the sustainable management of fisheries and marine natural capital, to ensure environmental sustainability.

This paper addresses these inquiries by first identifying Islamic ethical principles from the Quran through an analysis of verses on marine natural capital, before exploring their application to contemporary fisheries management and marine governance.

## **B. Method**

The Quran provides a comprehensive ethical framework for sustainable development, offering explicit guidance on vital resources that align with divine ordinance and ecological sustainability. This paper focuses on verses pertinent to fisheries sustainability, selecting those which explicitly recognize marine resources as integral to Allah's ordained *mīzān* (natural balance) and which articulate principles consistent with modern sustainability concepts. The selection criteria prioritize Quranic teachings that support operational policies—such as ensuring equitable distribution and encouraging sustainable use—thereby underscoring intergenerational justice and harmonizing theological imperatives with contemporary conservation needs.

This analysis begins with Quranic verses that establish humanity's role as responsible stewards or *khalifa* entrusted with Earth's natural legacy. Within this theological framework, marine and fisheries resources are examined as *ni'am* (divine blessings)

that sustain human life and uphold ecological balance. The verses not only affirm the material importance of these resources but also endow them with sacred value, framing their preservation as both an act of worship and a fulfillment of *amānah* (custodial covenant) between humanity and the Creator. This dual perspective—recognizing seas as sources of both physical sustenance and spiritual significance—provides a robust ontological foundation for sustainable fisheries governance in Islam.

In a subsequent phase, the analysis turned to Quranic verses that articulate principles of sustainability—even when not explicitly addressing fisheries—to derive broader ethical guidelines for natural resource governance. These verses include directives promoting equitable distribution and social justice, prohibitions on *ihtikār* (monopolization), and condemnations of *fasād* (corruption) and environmental damage. The study also examined texts explicitly forbidding *isrāf* (waste) and advocating moderation, collectively emphasizing the necessity of responsible stewardship. By synthesizing these teachings, the paper positions fisheries within a comprehensive natural resource system governed by this ethical-theological framework, highlighting the obligation to sustainably manage marine natural capital.

The corpus selected for this study prioritized Quranic verses with direct marine or ecological relevance—such as those referencing *al-baḥr* (the sea) or marine resources—as verified through *tafsīr* (classical exegesis). Mustafa Khatṭab’s *The Clear Quran* (2015) served as the primary translation source. Inclusion criteria encompassed both verses containing explicit maritime terminology (e.g., *al-baḥr*) to minimize ambiguity, and those articulating broader ethical principles (e.g., *khilāfah*, *isrāf*, and *fasād*) due to their significant ecological implications.

The methodological approach combined thematic *tafsīr* with qualitative content analysis. Thematic *tafsīr* was used to extract Islamic ecological principles—such as *ḥifẓ al-baḥr* (marine preservation)—from Quranic verses, contextualized through

classical exegesis, notably the commentaries of Ibn Kathīr, which emphasize natural interdependence. Qualitative content analysis then systematically coded these textual sources against key sustainability themes, such as equity and prohibitions against waste. This dual methodology enabled the selected verses to be analytically framed within modern fisheries management and governance, thereby advancing a theological argument for the conservation of natural capital. Ultimately, this approach combines theological hermeneutics and empirical analysis to offer a faith-based handling of contemporary environmental issues.

### C. Literature Review

A systematic review of the literature reveals a notable absence of studies explicitly addressing how Quranic theological and ethical principles may align with fisheries resources in general and marine natural capital in particular. However, some studies examining Islam and sustainable development—specifically how Quranic teachings can inspire sustainable practices—provide a usable theoretical foundation.

According to Zubair Hasan, Islam's holistic approach offers superior solutions to the moral-ethical dilemma compared to secular models focused on material maximization. He analyzes sustainable development through an Islamic lens, highlighting the fundamental trade-off between global economic growth and environmental degradation, and critiquing developed nations for prioritizing prosperity over equitable distribution of pollution<sup>4</sup>.

The study of Gulzar et al. examines Islamic environmental ethics through Quranic verses and Hadiths, demonstrating how Islamic theocentrism promotes sustainable resource use by prohibiting wastefulness. It argues that environmental degradation stems from theological neglect, and that maintaining

---

<sup>4</sup> Hasan, Z. (2006). Sustainable development from an Islamic Perspective: meaning implications and policy concerns, *J.KAU: Islamic Econ.*, Vol. 19, No. 1, pp: 3-18:16. Available at SSRN: <https://ssrn.com/abstract=3072324>

nature's balance is both spiritual duty and a practical obligation under Islamic law, offering a holistic alternative to technical solutions for sustainability challenges<sup>5</sup>.

In his 2016 paper, Sarkawi re-examines sustainability's three pillars (environment, social, and economic) through an Islamic lens, arguing they form an integrated system under humanity's role as *khalifa* (steward) or Earth's trustees. As a result, Islam's holistic view - where nature's balance reflects divine perfection and human actions face spiritual accountability - offers a universal framework for sustainable development, transcending its 1980s ecological origins to include moral and resurrection-day dimensions<sup>6</sup>.

Rahman et al. (2018) analysed Quranic and Hadith perspectives on sustainable development, demonstrating through content analysis that Islamic teachings play a crucial role in fostering environmental awareness and sustainable practices<sup>7</sup>.

Aburounia and Sexton's (2006) publication examined how Sharia principles, rooted in 7<sup>th</sup>-century Islamic teachings from the Quran and Hadith, provide a framework for sustainable development by promoting resource conservation and human responsibility. The study highlights Islam's early emphasis on sustainability concepts that only gained modern recognition in the 20th century<sup>8</sup>.

---

<sup>5</sup> Gulzar, A., Islam, T., Hamid, M., & Haq, S. M. (2021). Environmental ethics towards the sustainable development in Islamic perspective: A Brief Review. *Ethnobotany Research and Applications*, 22, 1-10, 6;8. Retrieved from <https://ethnobotanyjournal.org/index.php/era/article/view/3231>

<sup>6</sup> Sarkawi, A. A., Abdullah, A., & Dali, N. M. (2016). The concept of sustainability from the Islamic perspectives. *International Journal of Business, Economics and Law*, 9(5), 112-116:115. Available: [https://ijbel.com/wp-content/uploads/2016/06/KLiISC\\_52.pdf](https://ijbel.com/wp-content/uploads/2016/06/KLiISC_52.pdf)

<sup>7</sup> Rahman, A. H. A., Said, S., Salamun, H., Aziz, H., Adam, F., & Ahmad, W. I. W. (2018). Sustainable development from islamic perspective. *International Journal of Civil Engineering and Technology*. 9(4), 2018, pp. 985-992:991. [https://iaeme.com/MasterAdmin/Journal\\_uploads/IJCIET/VOLUME\\_9\\_ISSUE\\_4/IJCIET\\_09\\_04\\_111.pdf](https://iaeme.com/MasterAdmin/Journal_uploads/IJCIET/VOLUME_9_ISSUE_4/IJCIET_09_04_111.pdf)

<sup>8</sup> Aburounia, H. & Sexton, M. (2006). Islam and sustainable development. Research Institute for the Built and Human Environment, University of Salford, Salford M5 4WT:763. Retrieved from <http://www.irbnet.de/daten/iconda/CIB9051.pdf>

More recently, a growing number of studies have focused on translating Islamic principles of justice, moderation, and responsibility into Sustainable Development Goals (SDGs) through religious values.

Dangor (2023) focuses specifically on how Islamic teachings offer both alignment with UN goals and alternative frameworks rooted in Quranic principles and historical practices, presenting a faith-based model for sustainable development<sup>9</sup>.

Bakloo, F. A. and Asma, A. (2018) examined the UN's Sustainable Development Goals through Islamic teachings and demonstrated that Islam not only addresses but also provides solutions for creating a sustainable society when fully implemented at the individual and collective levels<sup>10</sup>.

Exploring this topic further, Khan and Haneef (2022) sought to demonstrate how Islamic principles align with the 17 SDGs across six dimensions (social, human capital, economic, sustainable lifestyle, environmental, and institutional). Key findings show that *zakat* (obligatory donation) and *waqf* (charitable endowment) address poverty/inequality (SDGs 1,2,5,10); *sukuk* (Islamic bond) finances sustainable infrastructure (SDG 9); and Quranic concepts like *wasatiyyah* (moderation) guide consumption (SDG 12), *khalifa* (stewardship) governs resource use (SDGs 6,7,13-15), and *'adl* (justice) strengthens institutions (SDG 16). The paper argues Islam's integrated approach—balancing economic growth (SDG 8) with ethical constraints—offers a moral framework superior to secular models for achieving SDGs<sup>11</sup>.

---

<sup>9</sup> Dangor, S. (2023). Sustainable Development: Islamic Perspectives and Implementation. *AL-WASATIYYAH*, 2(2), 4-39:29. <https://doi.org/10.58409/ipsajias.v1i2.22>

<sup>10</sup> Bakloo, F. A., & Asma, A. (2018). Islamic Perspectives on Sustainable Development. *Pakistan Journal of Humanities and Social Sciences*, 6(4), 516-525:524. <https://doi.org/10.52131/pjhss.2018.0604.0061>

<sup>11</sup> Khan, F., & Haneef, M. A. (2022). Religious responses to sustainable development goals: An Islamic perspective. *Journal of Islamic Monetary Economics and Finance*, 8(2), 161-180:175. <https://doi.org/10.21098/jimf.v8i2.1453>

In Dariah et al.'s (2016) view, an Islamic framework for implementing SDGs in Muslim countries is essential, emphasizing three core relationships (human-God, human-human, human-environment) and advocating for systemic transformation across economic, social, educational, and governmental domains. Their approach combines spiritual development to cultivate ideal Muslims as environmental custodians or *khalifa* with institutional reforms, arguing that only integrated Islamic systems can achieve sustainable development that fulfils both social justice and divine purposes<sup>12</sup>.

Besides remaining theoretical, this literature agrees on the centrality of stewardship and social justice, and demonstrates that Islam not only complements the SDGs but also proposes an alternative paradigm rooted in ethics, spirituality, and justice.

This literature review identifies two dominant approaches in Islamic studies on sustainable development; the first one is a normative approach that aligns with SDGs, where different studies (Dangor, 2023; F.A. & Asma, 2018; Khan & Haneef, 2022) highlight how Islamic principles of justice, moderation, and stewardship align with the SDGs, while offering alternative frameworks; and the second one is a critical approach, with some scholars (Zubair Hasan, 2006; Sarkawi, 2016; Gulzar et al., 2021) argue that Islam integrates spiritual accountability and intergenerational equity, Sharia provides holistic solutions, unlike materialist Western models.

The aforementioned studies explore diverse perspectives, yet reveal a persistent divide between scientific, political, and religious approaches. While rigorous scientific research on this subject remains limited—with existing works predominantly focused on exegetical analyses—emerging scholarship could

---

<sup>12</sup> Dariah, A. R., Salleh, M. S., & Shafiai, H. M. (2016). A new approach for sustainable development goals in Islamic perspective. *Procedia-social and behavioral sciences*, 219, 159-166: 163. <https://doi.org/10.1016/j.sbspro.2016.05.001>

investigate the integration of Quranic principles into sustainable development policies through localized grassroots initiatives.

#### **D. Seas and Fishing Resources in the Quran**

According to Islam, human is expected to adhere to the ethical principles enumerated in the Quran regarding the creator, the whole creation, society, his relatives, and himself.

The Quran states that Allah created the universe and everything in it, maintaining a sort of *mīzān* (natural balance), that expresses the Creator's justice and wisdom. The earth is considered an *amānah* (common good) entrusted to man, who must ensure the maintenance of this balance. The uniqueness of the elements created by God and the precision (everything is carefully measured and exactly balanced by the Creator) of the whole creation certify the Creator's wisdom, in which everything has its own purpose. This verse "*He is the One who created everything on the earth for you ...And He has 'perfect' knowledge of all things.*" (2:29) testifies that Allah created the Earth and everything in it, affirming that He has perfect knowledge of the whole creation as a global system.

The Quran recognizes that each element of the whole creation (living and non-living elements) has its own status, is praiseworthy and that all creatures are communities just like human communities "*There is no moving creature on earth, nor a bird that flies with its wings, but are communities like you. We have left nothing out of the record...*" (6:38). highlights the core of the human-nature relationship and points out the intrinsic value of non-human or non-living elements which is independent of their utility to humans, shattering the anthropocentric worldview. Thus, every living organism holds equal standing within creation, even seas and fisheries resources that are halal consumable and considered as a mean of sustenance and a source of enjoyment, as Allah says in this purpose "*Lawful to you is game from the sea and its food as provision for you and for travellers...And fear God to Whom you will all be gathered.*" (5:96). Fisheries resources are

then perceived as a blessing for residents of coastal areas (fishers and consumers), for travellers and pilgrims journeying by sea, ensuring they have a readily available source of halal lawful provision, that must be available over time, i.e. sustained for future generations.

Furthermore, work in Islam is not merely a matter of indifference; rather, human deeds—particularly within the Quranic framework—are profoundly significant and subject to a high degree of accountability. Although fishery resources are living organisms, they also constitute the very basis of fishing as an economic and subsistence activity. Fishing is recognized as a noble form of work, a concept that holds considerable importance in Islamic teachings and the Quran. This verse *“And say, ‘Do as you will. God will watch your actions, and so will His Messenger and the believers. And you will be returned to the Knower of the seen and unseen, then He will inform you of what you used to do.”* (9:105). functions as both a cautionary admonition and a compelling call to action, emphasizing the necessity of transparency and communal accountability. It thereby provides a theological mandate for participatory, sustainable management that involves stakeholders in decision-making.

The seas and oceans, along with the mysteries they hold, are a divine creation embodying the greatness of Allah. Thus, when venturing upon the sea, man must conduct himself as a faithful believer. Allah says in the Holy Quran, *“When they embark on a ship, they pray to God with sincere devotion. But when He delivers them safely to shore, they suddenly associate others with Him.”* (29:65), plaguing short-termism and complacency. Allah also warns His believers from betraying His trust once landing and on dry land *“Ask them, O Prophet, ‘Who rescues you from the darkest depths of land and sea when you cry out to Him humbly and secretly: ‘If He only saves us from this, we will certainly be grateful.’”* (6:63). This verse also warns against the short-term policies that cause natural capital depletion, undermining that an effective and ethical management must be fundamentally grounded not merely in crises response. Although sea-related jobs

are difficult and scary, the Quran openly acknowledges this truth *“When you are touched by hardship at sea, you forget your (so-called) gods and cry out to Him alone. But when He delivers you safely to shore, you turn away. Indeed, humanity is ever ungrateful.”* (17:67). The Quran explicitly acknowledges the inherent dangers of the sea and the fear it can inspire. In response to this peril, it instructs believers to place their trust in Allah when embarking upon voyages. This imperative of trust thereby establishes a theological foundation for sustainable and precautionary governance, which requires a long-term perspective to navigate uncertainty and ensure safety and resource continuity.

However, fishing is a very strenuous activity, and the dangers associated with it remind us of man’s need for Allah and encourage gratitude and meditation on divine signs. In this context, Allah provides determinant metaphorical and ethical keys *“He is the One who has made the stars a guide for you through the darkness of land and sea. We have already made the signs clear for people who know.”* (6:97). By providing guidance tools—such as celestial navigation or scientific data—Allah entrusts humanity with the responsibility to use their intellect to navigate ethically and sustainably. These divine blessings necessitate *shukr* or gratitude and reinforce faith. Ultimately, this verse emphasizes the obligation to reflect upon and appreciate Allah’s mercy and the precision of creation. It reminds us that natural spaces, in their tranquillity, invite contemplation of the divine order.

Allah calls to contemplate the creation to recognize His power, wisdom, and mercy and invites man to meditate and think about His greatness in this verse *“Indeed, in the creation of the heavens and the earth; the alternation of the day and the night; the ships that sail the sea for the benefit of humanity; the rain sent down by God from the skies, reviving the earth after its death; the scattering of all kinds of creatures throughout; the shifting of the winds; and the clouds drifting between the heavens and the earth...”* (2:164). This verse magnificently highlights maritime navigation as a profound sign of divine wisdom and power, inviting contemplation on how ships enable humans to cross the seas for

their travel, trade, and sustenance. It demonstrates how Allah has subjected His *taskhīr* (creation) to serve humanity, thereby rendering environmental conservation not merely an ethical choice but an imperative act of faith and gratitude.

For this purpose, ships are not merely a human achievement; they are seen as a sign of Allah's power and blessings, who reminds us "*And among His signs are the ships sailing the sea like mountains.*" (42:32) that it is He who grants them permission and guidance. Calling for contemplation on Allah's boundless blessings and absolute power over creation, this verse "*Do you not see that God has subjected to you whatever is on the earth—and the ships which sail through the sea by His command? He prevents the sky from falling upon the earth except by His permission. Indeed, God is Ever Gracious and Most Merciful to humanity.*" (22:65) calls for responsible stewardship by highlighting *taskhīr* or the subjugation of nature—where all creation is made accessible and beneficial to humanity by Allah's will, as He governs it. It emphasizes that the universe constitutes a holistic system, sustained by divine mercy and entrusted to humans. Consequently, humanity's responsibility is to govern this system with wisdom and gratitude worthy of such a blessing.

These verses recognize the importance of seas, oceans, and fishing resources, and a call for appropriate management that emphasizes equitable sharing, thereby establishing social justice. This can be achieved through the state's role. The state or authority is important in Islam, particularly in terms of regulation, and fishing is an activity that cannot escape such regulations. This role ensures both accessibility to resources and sustainable use.

### **E. Seas and fishing Resources as a Natural Capital**

Traditionally viewed as opposing forces—where the economy exploits nature to meet human needs—these two domains have long evolved in isolation. However, as economic growth collides with ecological limits, humanity's unchecked greed has triggered severe environmental crises, forcing a re-

evaluation of its relationship and the search for sustainable coexistence. This paper will clarify the concept of natural capital, examining its adoption, transformative potential, and the challenges it entails.

## 1. What Does Natural Capital Mean?

Natural capital is an economic metaphor that frames nature's elements as asset stocks that yield flows of valuable goods and services upon which human societies and economies depend<sup>13</sup>.

Robert Costanza and Herman Daly, pioneers in using this concept as we know it today, defined natural capital as 'the stock that yields a flow of valuable goods and services for the future'<sup>14</sup>. It is a stock capable of generating a flow of goods and services whose future value remains undetermined, hence the rationale for its preservation.

According to Maria Akerman, natural capital is a polysemic metaphor that is analytically weak, metaphorically strong, and heuristically powerful. It stands as distinct and significant precisely because it reveals an active dimension of nature, while attributing to it both tangible and intangible uses and benefits<sup>15</sup>.

Unlike the previous authors, McCook, L. J., et al., focus on marine natural capital as the capacity of marine and ocean

---

<sup>13</sup> Norgaard, R. B., Barnard, P., & Lavelle, P. (2007). Assessing and restoring natural capital across scales: lessons from the millennium ecosystem assessment. In Aronson, J. et al. (Eds.) *Restoring Natural Capital: Science, Business and Practice*. Island Press, Washington DC, USA, 36-43: 38.

<sup>14</sup> Costanza, R., & Daly, H. E. (1992). Natural capital and sustainable development. *Conservation biology*, 6(1), 37-46: 38. <https://doi.org/10.1046/j.1523-1739.1992.610037.x>

<sup>15</sup> Akerman, M. (2005). What does 'natural capital' do? The role of metaphor in economic understanding of the environment. *Environmental Education Research*, 11(1), 37-52: 42. <https://doi.org/10.1080/1350462042000328730>

ecosystems to continue providing services<sup>16</sup>, while Lucas Reijnders does not use natural capital as a metaphor. It is defined as the stock of environmentally provided assets from which, now and in the future, products and services can be derived that are useful to humanity. It comprises ecosystems, which provide services that benefit humans (ecosystem services), natural resources (e.g., ores), and the physical environment, providing services such as isolation<sup>17</sup>.

Usually, a subsidiary argument regarding concept selection concerns how its adoption may encroach upon existing discourses<sup>18</sup>. This metaphor carries significant conceptual and communicative value, but increasingly highlights the *in situ* (on site) worth of resources—their opportunity cost of use—for public decision-makers<sup>19</sup>. Therefore, the economic discourse on this new development paradigm effectively narrows the metaphorical meaning, reducing nature to merely a production mechanism - that is, considering only its quantitative aspect<sup>20</sup>.

Environmental degradation, particularly of coastal and marine ecosystems, depletes natural capital—the foundational ability of ecosystems to provide benefits to humans<sup>21</sup>. Recent perspectives reframe the human-nature

---

<sup>16</sup> McCook, L. J., Cai, L., Yeung, C. W., Chen, S., Ouyang, Z., Ang, P., Bordt, M., Cao, L., Chen, Z., Han, B., Huang, H., Lei, X., Lian, J., Li, F., Xue, G., Zhao, P. (2025). Marine ecosystem services and natural capital in China: Opportunities for improved understanding, valuing, and policy. *PNAS nexus*, 4(5), pgaf110: 2. <https://doi.org/10.1093/pnasnexus/pgaf110>

<sup>17</sup> Reijnders, L. (2021) Substitution, natural capital and sustainability, *Journal of Integrative Environmental Sciences*, 18:1, 115-142: 116, <https://doi.org/10.1080/1943815X.2021.2007133>

<sup>18</sup> Winnett, A. (2005). Natural capital: hard economics, soft metaphor?. *Environmental Education Research*, 11(1), 83-94: 84. <https://doi.org/10.1080/1350462042000328767>

<sup>19</sup> Fenichel, E. P., Abbott, J. K. (2014). Natural capital: from metaphor to measurement. *Journal of the Association of Environmental and Resource Economists*, 1(1/2), 1-27: 2. <https://doi.org/10.1086/676034>

<sup>20</sup> Akerman, M. (2003). What Does 'Natural Capital' Do? The Role of Metaphor in Economic Understanding of the Environment. *Environmental Values*, 431-448: 441. <http://www.jstor.org/stable/30302036>

<sup>21</sup> McCook, L. J., Cai, L., Yeung, C. W., Chen, S., Ouyang, Z., Ang, P., Bordt, M., Cao, L., Chen, Z., Han, B., Huang, H., Lei, X., Lian, J., Li, F., Xue, G., Zhao, P. (2025): 9.

relationship as a reciprocal cycle. This view stresses that natural capital is an essential asset that, like built capital, requires active investment and sustainable management to maintain its value and the benefits it provides, i.e. replenishing natural capital to ensure it can continue to sustain the universe<sup>22</sup>.

It has been established since the founding of Islam in the 7th century that humans and nature were never separated from each other, though this went unnoticed until debates on sustainable development and environmental issues reached the political sphere. By framing nature as capital, this metaphor has transformed discussions about ecological resource utilization and its economic underpinnings. Its conceptual migration from rhetorical device to operational paradigm underscores its analytical significance. Thus, by applying the capital concept to nature, natural capital theory emphasizes the need to manage natural elements differently - preserving and maintaining them for future generations, thereby highlighting sustainability. This approach aims to protect both human economic/social interests and long-term ecological privilege, which remain equally vital for humanity even if unrecognized due to short-sighted perspectives.

## **2. Seas as a Natural Capital based on the Quran**

A conceptualization of nature as a capital is essential for understanding socio-economic systems, which are designed according to what natural systems can offer (the source function) and are capable of absorbing (the sink function).

---

<sup>22</sup> Jarvis, D., LIGNIER, P., Kubiszewski, I., & Costanza, R. (2023). Natural Capital, Ecosystem Services, and Subjective Wellbeing: A systematic review. in Elizabeth Rieger, and others (eds), *Toward an Integrated Science of Wellbeing* (New York, 2023; online edn, Oxford Academic, 18 May 2023), 401-435: 403, <https://doi.org/10.1093/oso/9780197567579.003.0019>

In this context, seas and oceans exemplify this dual role—functioning both as an essential source of vital fishery resources for human economies and as a sink for the solid and liquid waste, reflecting the negative externalities generated by historical and contemporary models of development. This is to say nothing of the countless ecosystem services these vast spaces provide—so vast that few can fathom the life they sustain or the processes they harbor, all of which underpin life on Earth. Thus, fisheries, though a vital activity for any country with a maritime coastline or offshore fishing industry, serving as both an economic driver and a means of subsistence, must treat fishery resources as an integral component of natural capital—a foundation upon which sustainable exploitation and ecological balance depend. This activity depends on fishery resources, which are a critical component of marine natural capital. Their decline would have severe economic repercussions, destabilizing the entire fishing industry.

Like any natural capital, preserving fishery resources is essential—their loss would be catastrophic. Therefore, investing in their sustainability is imperative to ensure the long-term viability of fisheries and promote more sustainable fishing practices.

Fishery resources, derived from natural fishery capital as a flow, play a crucial role in sustaining fisheries and supporting coastal communities.

The Quranic verses concerning the sea are universal in scope, addressing the natural capital derived from marine ecosystems as a whole. These verses depict the sea as a stock of capital that generates a continuous flow of goods and services for mankind as *khalifa* (stewards of the Earth), entrusted with maintaining ecological balance. These provisions encompass fisheries as a vital source of halal food, the extraction of coral and pearls, and maritime transport

services. Such flows represent invaluable wealth, endowed with both utility and intrinsic value.

Allah says *“And He is the One who has subjected the sea, so that you may eat from it tender seafood and extract from it ornaments to wear. And you see the ships sailing through it so that you may seek His bounty and give thanks to Him.”* (16:14). This verse underscores *taskhīr* (divine subjection) and the blessings derived from the sea, necessitating *shukr* (gratitude). These blessings extend beyond mere sustenance to encompass aesthetic beauty (e.g., pearls and coral), economic prosperity (enabled by maritime trade and navigation), and holistic well-being.

He also states, *“And the two bodies of water are not alike: one is fresh, palatable, and pleasant to drink, while the other is salty and bitter. Yet from each you eat tender meat and extract ornaments to wear. And you see the ships sailing through them, so you may seek His bounty and give thanks to Him.”* (35:12). Building upon the ideas in the previous verse (16:14), this verse further elaborates on the components of marine natural capital—ranging from sustenance and economic-aesthetic value to navigation and commerce. It also acknowledges the intrinsic value of creation (inherent to each element, independent of human utility), and underscores ecological diversity. It argues that preserving this diversity is a religious imperative, as it represents a profound source of divine blessing. Beyond emphasizing divine power and wisdom, the verse concludes by emphasizing the importance of gratitude towards the Creator.

Although the Quran is fundamentally distinct from the concept of natural capital, the last two verses emphasize the seas’ multiple values as natural capital, ranging from providing sustenance serving as sources of precious materials and resources (such as pearls and coral for jewellery), to serving as important highways for global commerce.

The Quran highlights coral and natural pearls as invaluable marine resources, a divine wealth that reflects Allah's magnificent creation: "*From both (waters) come forth pearls and coral.*" (55:22). As emphasized in verse (16:14), pearls and coral represent integral components of marine natural capital, serving as signs of divine grace and power that invite contemplation. This verse carries profound implications for environmental ethics, illustrating that the sea possesses value beyond merely nutritional, aesthetic, or economic benefits. Their conservation is therefore essential to safeguarding not only food security but also biodiversity, ecological beauty, and sustainable economic opportunities—such as tourism, pescaturism, and pearl aquaculture. Regarding the sea as full-fledged natural capital demands a comprehensive, holistic vision that acknowledges the interconnectedness of all marine systems.

Given their sacred and ecological value, their extraction must align with the delicate balance of the marine ecosystem, necessitating an ethical response that ensures sustainability and preserves these treasures for future generations while honoring their divine origin.

Beyond the tangible resources the seas provide, maritime transport is another essential service enabled by this natural capital. The Quran repeatedly emphasize Allah's boundless power and generosity. Ships traverse the seas by His will, facilitating travel, trade, and contemplation of the creation. Allah affirms, "*God is the One Who has subjected the sea for you so that ships may sail upon it by His command, and that you may seek His bounty, and perhaps you will be grateful.*" (45: 12). This verse adds a crucial layer to *taskhīr* (the subjection) of the sea and its purpose. The sailing of ships—which enables trade, travel, fishing, and the transport of goods vital to livelihoods and economies—highlights the deliberate and purposeful nature of creation, thereby mandating *shukr* (gratitude) toward the Creator.

He further declares, *“God is the One Who created the heavens and the earth, and sends down rain from the sky, producing thereby some of the fruits for your provision. He has subjected for you the ships to sail through the sea by His command, and has subjected for you the rivers.”* (14:32). This verse enumerates a sequence of interconnected blessings that serve as evidence of Allah’s power, wisdom, and mercy, constituting a call for humanity to reflect and express gratitude. It introduces the concept of utility—wherein natural resources provide goods and services—implying a human responsibility to preserve their functionality. For example, overfishing degrades the sea’s utility, violating the divine balance and squandering divine blessings.

And He reminds us *“Indeed, in the creation of the heavens and the earth; the alternation of the day and the night; the ships that sail the sea for the benefit of humanity; the rain sent down by God from the skies, reviving the earth after its death; the scattering of all kinds of creatures throughout; the shifting of the winds; and the clouds drifting between the heavens and the earth—(in all of this) are surely signs for people of understanding”* (2:164). Like the preceding verse, this one invites contemplation of creation—wherein ships sailing the sea form part of a broader system of divine signs—through which Allah enables humans to travel, trade, and access resources. It further calls for recognition of the Creator’s power, wisdom, and mercy. The emphasis on intellect renders its purposeful use an imperative for those endowed with it.

These verses emphasize the sea’s divinely ordained role as a pathway fostering connectivity and prosperity, while calling humanity to gratitude for Allah’s boundless wisdom and blessings.

The Quran recognizes the seas’ importance in facilitating trade and commerce among nations, acknowledging the role of ships instrument in seeking

sustenance and divine blessings. Allah reminds humanity of this great grace, calling for reflection on the different signs of His power and generosity “*Your Lord is the One who causes the ships to sail smoothly for you through the sea, so that you may seek His bounty. Indeed, He is ever merciful to you.*” (17:66). By highlighting divine grace in enabling navigation—through Allah’s command over winds, currents, and waves—this verse portrays the sea as a manifestation of mercy and sustenance. This framing establishes gratitude and sustainable stewardship of resources as a moral obligation, essential to preserving this marine natural capital for future generations.

He further affirms that ships are not merely a human achievement but one of divine signs, “*And among His signs are the ships sailing the sea like mountains.*” (42:32). Despite being concise, this verse illustrates the vastness of creation and invites contemplation of it. By emphasizing Allah’s mercy and *taskhīr* (the subjection)—a theme echoed in verses such as 14:32 and 31:31—it affirms that human ingenuity and intellect are themselves manifestations of divine grace. In a similar purpose, He says “*And His are the ships towering on the sea like mountains.*” (55:24). And also “*Do you not see that the ships sail through the sea by God’s grace so that He may show you some of His signs? Surely in this are signs for whoever is steadfast, grateful.*” (31:31). This verse clarifies that Allah enabled humans to build vessels and navigate despite inherent risks by subjecting the seas and natural laws to them or *taskhīr*. This profound *ni’ma* (favor) necessitates profound *shukr* (gratitude) and *sabr* (patient reliance) on divine wisdom.

These sacred words collectively affirm the sea as a divinely ordained pathway for human connection and prosperity, inviting contemplation of Allah’s infinite wisdom in creating such means of sustenance and interconnection between peoples.

However, the Quran reminds us that human knowledge of the universe's secrets remains deeply limited: "...and you (*O humanity*) have been given but little knowledge." (17:85). This verse emphasizes the limitations of human knowledge, urging humility and recognition of the boundaries of human understanding. This humility must become a guiding principle when engaging with the profound complexity of creation. Such acknowledgement of the unknown should inspire precaution and conservation, rather than irrational or short-sighted exploitation. Suggesting that mankind has only begun to uncover the full scope of what seas can provide. There is also marine diversity that thrives in the abyssal depths, which represents a vast genetic heritage—known as marine genetic resources. Long overlooked, their existence and particularly their high potential for pharmaceutical and cosmetic production were confirmed by scientific expeditions in these extreme environments. Today, deep-sea bioprospecting has become a major component of the High Seas Treaty (2023). The potential uses of marine natural capital remain largely unknown, inviting us to recognize the divine creation.

## **F. Principles of the Quran Applicable to Fisheries**

As the central religious text of Islam, the Quran, while not an environmental textbook, contains foundational principles that align with modern environmental ethics. When properly applied, these principles form a foundational ecological key concept that can guide improved management of fisheries and marine resources. This approach ensures the sustained provision of goods and services derived from this natural capital stock. This section establishes the theological and ethical groundwork for environmentalism, equity, and the sustainable stewardship of marine natural capital within an Islamic framework.

Humankind is not the only community to live on Earth; the Quran establishes that humans, as a species endowed with

intellect, possess the unique capacity to reflect on their actions and bear full accountability for them. Therefore, Allah entrusted man as *khalifa* (stewards, regent, intendant, guardians) of the Earth. While endowed with intellect, he holds no inherent superiority over other creatures—instead, he is responsible for maintaining the universe’s balance. The Quran affirms this role: “*He is the One who has made you successors upon the earth...*” (6:165). As explained in verse (22:65), humans are beneficiaries and managers of the universe, not its owners. This underscores human responsibility and serves as a test: the right to use the earth’s natural capital must be exercised in accordance with divine guidelines set by Allah, since humanity serves as caretakers and stewards, not owners.

By making sustainability and intergenerational equity a theological imperative, the outcomes of such actions become a defining criterion for humanity’s success or failure as *khalifa* (stewards) on Earth.

As *khalifa*, man is accountable not only for the welfare of humankind but for all living beings and the universe, including fisheries—the very foundation of fishing. This trusteeship transcends a lifetime, requiring intergenerational justice to protect the universe for future generations.

Appointed as *khalifa* of the Earth, man is called to exercise restraint in his conduct and demonstrate worthiness of this sacred trust. His actions should be grounded in the principle of existence's absolute continuity - just as natural law was ordained by the Creator.

The title of *khalifa* does not concede absolute property rights; rather, it implies a trusteeship that allows responsible use while strictly prohibiting waste and degradation. Any violation of the natural order—whether through waste, degradation, pollution, or similar acts—is harmful and fundamentally contradicts the essence of *khalifa*. Therefore, the universe is entrusted with stewardship - not ownership - of the Earth.

This concept of *khalifa* (stewardship) provides the theological cornerstone for Islamic environmentalism and sustainable fisheries, directly opposing exploitative and unsustainable practices. The management of marine natural capital—including resources and ecosystems—must be grounded on sustainable policies that prioritize a long-term vision to prevent overfishing and ecological degradation. Moreover, such management must be applied at both global and local scales, recognizing humanity's central role in upholding the balance between utilization and conservation imperatives.

Knowing that divine wisdom has imbued all creation with purpose, their preservation sustains the ecological harmony that upholds the universe. Another miracle of creation is the natural balance, an incarnation of divine wisdom. Emphasizing His immense power, Allah affirms that every element of the creation functions within a cosmic and moral balance which is the principle of ecological equilibrium: “*And He has raised the heaven, and set up the balance, so that you do not defraud the balance. And always measure with justice and do not give short measure.*” (55:7-8).

Within Allah's perfect creation, the precise *mīzān* (balance) in the universe prevents chaos while embodying *‘adl* (justice), fairness, and equity in human affairs. These principles are inviolable, prohibiting *isrāf* (excess), injustice, and transgression.

Measuring with justice is a call to manage marine natural capital sustainably and equitably, encompassing intergenerational, intragenerational, and interspecies justice.

In the context of fisheries governance, overfishing, pollution, and ecosystem degradation constitute a violation of this divine balance and a transgression of its limits. Therefore, it is essential to establish sustainable catch quotas based on scientific assessments of fish stock reproductive rates and to prohibit destructive practices such as bottom trawling and blast fishing. These measures must be implemented while ensuring equity

among users, fairly distributing fishing rights, and preventing monopolistic control.

As *khalifa*, man is charged with safeguarding this sacred equilibrium—a duty highlighted by the warning: “Do not spread corruption in the land after it has been set in order. And call upon Him with fear and hope. Surely God’s mercy is ever near to the good-doers.” (7:56). Building upon the previous verses (55:7-8), this one presents the foundation of social and environmental ethics in Islam. Literally, the prohibition of *fasād* (corruption) encompasses the concept of justice discussed earlier and also explicitly prohibits damaging balanced natural capital. Thus, environmental degradation or reckless exploitation of natural capital elements is an act of *fasād*, a violation of Allah’s order and a betrayal of the *khalifa*’s duty.

By recognizing environmental destruction as *fasād*, this verse is of great importance Islamic environmental ethics. Applied to fisheries, this prohibition warns against: overfishing that disrupts marine systems and collapses stocks; pollution that introduces harmful substances (e.g., plastic and chemical) into marine environments, endangering ecosystems and species; and destructive practices (e.g., dynamite fishing) that degrade marine ecosystems such as *Posidonia* seabed in the Mediterranean Sea. Consequently, this ethic necessitates not only avoiding harm but also actively conserving, restoring, and governing marine natural capital through sustainable and precautionary approaches.

Everything we have defended constitutes the ultimate ethical foundation for opposing unsustainable practices and for a governance model grounded in precaution, justice, and responsibility. Sustainability is no longer merely a policy choice—it is a divine imperative. Unsustainable ways of managing marine natural capital violate *al-mīzān*, making it an act of both ecological and moral corruption.

This *mīzān* (natural balance) embodies Divine perfection - a sacred cosmic equilibrium that involves devoutness. Violating it is an act of *fasād* (corruption), an act explicitly condemned in the

Quran (7:56). Such a transgression represents not only an ecological harm but also an offense against the Creator, as by disrupting the natural order, humans defies their role as *khalifa*.

Therefore, excessive fishing, destructive gear, harvesting during breeding seasons, blast fishing, bottom trawling, constitute a form of *fasād*, despising the sanctity of Allah's creatures, and jeopardizing future generations. These practices violate the divine-ordained order; the sacred *mizān* (balance), and beyond violating the Quranic prohibition against spreading corruption (7:56), they betray our sacred trust as *khalifa*. Conversely, complying with regulations, such as spatial and/or temporal limitations and sustainable gear, ranks marine ecosystems alongside human beings, thereby preserving the equilibrium of marine ecosystems as mandated by the *khalifa's* covenant.

These ideas are supported by numerous verses that, when applied to fisheries, assert that the collapse of a fishery or the degradation of marine natural capital represents a failure of the *amānah* (divine trust) and a transgression that leads to resource depletion and social injustice. Sustainable governance of these resources is achievable only when operating within the ethical boundaries revealed in the Qur'an—including the prohibition of *isrāf* (waste) and *fasād* (corruption)—while simultaneously adhering to scientific principles of natural resource management, such as respecting fish stock regeneration rates and ecosystems' carrying capacity.

Furthermore, the Quran warns against excessive use of natural resources by requiring a rational and judicious use of the flow that derives from natural capital (Allah's gifts), advocating responsible stewardship, and strictly forbidding waste. Regarding Islam's principles, it means warranting a wise use of natural resources where extraction and/or exploitation must be sustainable, i.e. balanced, moderate, and governed by principles of environmental conservation and preservation, in addition to intergenerational equity and social justice, while avoiding waste. As Allah commands, "...Eat and drink, but do not waste. Surely He

*does not like the wasteful.*" (7: 31). The use of natural capital must adhere to a responsible and moderate rate. The prohibition of waste is a cornerstone for maintaining balance and for being worthy of the responsibility and trust placed by the Creator. This prohibition is intrinsically linked to a governance model for natural capital that enables improved long-term management and upholds the sacred equilibrium of the universe.

In fisheries governance, waste is linked to overfishing (catching more than is consumed), bycatch, high consumption levels that drive unsustainable practices, and destructive fishing methods. Therefore, sustainability becomes a matter of faith, signifying that avoiding waste in the management of natural capital is not merely an economic or ecological imperative—it is a divinely mandated obligation toward Allah.

As an extractive human activity, fishing must observe responsible harvesting principles: taking only what is needed to prevent depletion, minimizing spoilage of highly perishable catches, and eliminating waste through reduced bycatch and full utilization of marine catches.

The imperative to prohibit waste can be operationalized through direct policy measures to improve the governance of fisheries-based marine natural capital. Key measures include implementing sustainable catch quotas to prevent overexploitation, adopting selective fishing gear to reduce bycatch, improving cold chain infrastructure to minimize post-harvest losses, and launching public awareness campaigns to curb food waste and overconsumption.

The Quranic injunction against wastefulness (7:31) finds profound application in fisheries management – where environmental necessity converges with sacred obligation.

Another Quranic principle is the one about justice and fairness which are embodied in the Quran *"O my people! Give full measure and full weight with justice. Do not defraud people of their property. Nor go about spreading corruption in the land."* (11:85). Economic injustice can be linked to environmental corruption,

since absolute fairness and equity are essential for maintaining social trust, economic stability, and the divine order.

Within a fisheries context, overexploitation, destructive fishing practices, and pollution are considered forms of *fasād*. The latter impacts not only natural capital but also social justice, as it defrauds future generations (intergenerational injustice), creates inequity within the current generation (e.g., between industrial and small-scale fishers), and even violates the rights of other species (interspecies injustice). In this sense, avoiding *fasād* must be translated into policies that ensure intergenerational and intragenerational equity, such as implementing scientifically grounded sustainable catch quotas.

This verse provides a theological foundation for the sustainable and equitable management of natural capital. Justice is a central tenet of achieving sustainability, as Islam explicitly prohibits fraud and regards it as an act of corruption on Earth. Consequently, adopting short-term visions that privilege one category of stakeholders at the expense of another constitutes both a policy failure and a form of corruption.

These divine injunctions, such as encouraging fairness when allocating natural resources, are heightened by a warning from *ikhtinaz* (hoarding), when Allah says, “Give good news of a painful torment to those who hoard gold and silver and do not spend it in God’s cause. On the Day their (hidden) treasures will be heated up in the Fire of Hell, and their foreheads, sides, and backs branded with it, (they will be told), This is what you hoarded for yourselves. Now taste what you used to hoard” (9: 34-35), advocating just and equitable resource sharing, and promoting intergenerational justice.

In a broad sense and within the context of fisheries, the concept of hoarding can be extended to natural capital, where it constitutes a form of injustice. They arise from various practices that promote hoarding and monopolization, including short-term policies that unfairly burden future generations, regulations that encourage overfishing by granting exclusive access to industrial

fleets—thereby defrauding small-scale fishers of their rightful share—and pollution and habitat destruction that generate localized benefits while imposing global degradation costs.

The conservation of natural capital necessitates a dual investment strategy: first, in equity—ensuring benefits are distributed justly among all current stakeholders and for future generations (intergenerational equity); and second, in the natural capital itself through the establishment of Marine Protected Areas, education, scientific research, and the development of sustainable technologies.

In addition, these verses provide a powerful economic and ethical argument against unsustainable and inequitable practices in marine resource management. Such unsustainable policies constitute a form of hoarding divine blessings.

This natural capital encompasses the other goods and services provided by seas and oceans, underscoring that humanity understands only a fraction of this universe—an implicit call to preserve it to maintain equilibrium.

Finally, the status of *khalifa* grants man a fiduciary responsibility—not absolute ownership—over divine creation. This trusteeship implies a sustainable use of resources, according to the concepts of *mīzān* (natural balance), *isrāf* (balance), and *fasād* (corruption), is about taking care of the creation as an *amānah* (trust) for all generations (past, present, and future), including trans-species justice, and ensuring intergenerational and intragenerational justice /equity. As Khalifa, man is obligated to manifest *hikma* (divine wisdom) toward all creation, upholding *mīzān* (ecological balance) and *ʿadl* (justice).

## G. Islamic Principles Application to Fisheries

Islamic principles underscore the critical need to maintain an equilibrium between the utilization of natural resources and environmental sustainability.

Iran's adoption of sustainable fishing practices, for example, demonstrates a notable convergence with Islamic principles of environmental stewardship. These efforts are informed by the objectives of Islamic law, particularly the preservation of life and resources, reflecting core Islamic values of ecological balance and ethical responsibility<sup>23</sup>. However, severe environmental crises present a major challenge to these legal and ethical objectives, as environmental degradation directly threatens essential human needs — the highest priority in Islamic jurisprudence for ensuring the well-being of all creation<sup>24</sup>.

By virtue of humanity's role as *khalifah* (steward) on Earth, it bears the responsibility for conserving marine natural capital stocks and sustaining associated fisheries resource flows. Since all of creation is interconnected within *mizān* (balanced system), upholding this balance aligns with the principles of intergenerational equity and the precautionary principle, where the long-term health of fish stocks is prioritized over short-term gain.

The maintenance of these vital resources, which are essential to the fishing sector, can be facilitated through policies establishing protected areas. This approach is reflected in global targets such as the Kunming-Montreal Global Biodiversity Framework (adopted in 2022 with goals extending to 2030), which aims to protect 30% of terrestrial and marine areas by this deadline.

Parallel to the concept of Marine Protected Areas (MPAs), Islamic principles have long established conservation zones based on faith-based criteria, known as *himā* (protected areas). These

---

<sup>23</sup> Citaningati, P. R., Alfianto, T. (2024). Blue Economics in Islamic Economics Perspective: Fiqh Bi'ah Approach: Fiqh Bi'ah Approach. *Journal of Islamic Economic Laws*, 7(02), 128-160: 151-152. <https://doi.org/10.23917/jisel.v7i02.5200>

<sup>24</sup> Nair, M. S., & Ahmed, P. K. (2022). Environmental sustainability and contemporary Islamic society: A shariah perspective. *Asian Academy of Management Journal*, 27(2), 211-231 : 218. <https://doi.org/10.21315/aamj2022.27.2.10>

traditional reserves reflect a holistic approach to environmental stewardship grounded in ethical and spiritual values.

In this context, Imran Hayat et al. underscore the critical importance of Islamic environmental ethics in addressing modern ecological challenges, advocating stronger integration of environmental equity and justice within Islamic ethical discourse. It further engages with critiques facing these ethics, including tensions between traditional principles and the pressures of globalization and modernity, ongoing interpretive debates around key religious texts, and practical obstacles to implementing these values in diverse socio-political contexts<sup>25</sup>.

The application of the traditional *himā* conservation system exemplifies the alignment between Islamic principles of moderation and resource protection. This approach supports the management of natural reserves and prevents overexploitation in both marine and terrestrial areas, reflecting the broader aims of Islamic law to ensure long-term sustainability and the preservation of life<sup>26</sup>. However, to prevent goals from remaining unmet, the *himā* conservation system must not only establish quantitative targets but also implement periodic progress reports to ensure mid-term objectives are achieved.

The concept of *himā* serves as a critical mechanism to facilitate the implementation of complementary measures to establish sustainable fisheries governance, with the central objective of reversing overexploitation trends. These policies can take various forms affecting marine natural capital stocks and their derived flows, including:

1. Fishing quotas, which regulate the number of fishers permitted in protected areas through strict frameworks,

---

<sup>25</sup> Hayat, I., Malik, M. S., Ali, M. W., Husnain, M., Sharif, M., & Haleem, A. (2023). The role of Islamic environmental ethics in the alleviation of climate challenges and the preservation of ecosystem. *Russian Law Journal*, 11(11S), 395-404: 403. <https://doi.org/10.52783/rj.v11i11s.1967>

<sup>26</sup> Citaningati, P. R., Alfianto, T. (2024) : 152.

- align with intergenerational equity—a principle strongly advocated in the Quran;
2. Biological rest policies, involving temporary fishing bans during critical reproductive periods, emphasizing interspecies equity by upholding their right to persist and reproduce;
  3. Regulated mesh size requirements, measures consistent with interspecies equity principles, ensuring the right of all species to endure;
  4. Legal size with adherence to minimum market sizes and prohibitions on targeting large breeders, recognizing fisheries resources as ecological entities in their own right and prohibiting the capture of juveniles— a vital condition for preserving reproductive potential, enhancing the resilience of fish populations, safeguarding future stocks and upholding intergenerational equity, as emphasized in divine teachings;
  5. The prohibition of blast fishing, which has detrimental effects not only on fishery resources but also on the seabed, thereby impacting the entire marine natural capital in the area. This aligns with the precepts of equity among species.

The Quran establishes a powerful theological foundation for biodiversity conservation and the ethical treatment of species within Islam. Ecosystem-based management policies, informed by the principle of justice or *'adl*, are essential for protecting critical marine natural capital. A perspective that advocates the protection of both living and non-living elements beyond their mere utility to humans.

Applied to the context of fisheries, this ethical framework explicitly condemns unsustainable practices and overexploitation. Waste prohibition serves as a caution against bycatch, which results in unnecessary mortality of non-target species, through mandates for selective fishing gear -including gear that excludes

juvenile fish below legal-size limits and for species during their biological rest periods. Furthermore, it prohibits destructive methods such as blast fishing, which cause irreparable damage to critical natural capital. This includes foundational ecosystems like coral reefs and seaweed meadows (e.g., *Posidonia Oceanica*), which support diverse biological communities.

In line with the core principle of making full use of resources derived from the natural capital stock, an operational strategy involves developing new markets or adding value to bycatch to minimize waste.

For landed catches, waste reduction can be achieved by deploying cold chains, investing in higher-capacity vessels, installing ice-making units in ports, and streamlining market distribution channels. These measures all aim to limit the waste of captured fishery resources.

In Algeria, government investments in fleets to boost capture fisheries production—though aimed at stimulating economic growth—are increasingly criticized as ecologically destructive and excessive<sup>27</sup>. From an Islamic perspective, such practices align with *isrāf* (wastefulness) and violate core principles of *shukr* (gratitude) and *'adl* (justice). The overexploitation of marine natural capital through overfishing directly contradicts Islamic teachings on *amānah* (responsible stewardship) and the preservation of *mīzān* (natural balance), underscoring a tension between short-term economic goals and long-term ethical and environmental sustainability.

On the other hand, resources must be distributed fairly, and just and equitable access to resources—incorporating intergenerational, intragenerational, and interspecies equity—can be achieved through the implementation of a quota system. Such a system allocates specific quotas to each fishing category, thereby

---

<sup>27</sup> Chaker, A. (2025). *Harmoniser investissement en capital naturel et développement du secteur de la pêche en Algérie : une approche économique* (Thèse de doctorat, Université Abderrahmane Mira Algérie): 186.

ensuring intragenerational equity, while also safeguarding the right of future generations to their own quotas. This is only feasible if the carrying capacity of ecosystems and the regeneration and reproduction rates of species are respected.

From the perspective of Islamic law, Muhammad Yasir et al. insist that the use of tiger trawls is also contrary to the principles of sharia, which is sufficiently strong (Surah and Hadith) to state that this fishing gear is not in accordance with Islamic teachings<sup>28</sup>.

In Indonesia, despite the Fatwa Number 41 of 2014 concerning Waste Management to Prevent Environmental Damage issued by the Indonesian Islamic Scholars Council (MUI), there is no special fatwa (legal ruling) on the use of tiger trawls. This fatwa can serve as a starting point for addressing tiger trawling, before a specific one<sup>29</sup>.

The Islamic principle of justice extends to all species, framing environmental pollution as a paramount transgression to be combated in both terrestrial and marine domains. This is particularly critical given that marine pollution often originates from land-based sources (telluric pollution).

Beyond generalized pollution, a more insidious threat exists in the form of abandoned, lost, or otherwise discarded fishing gear (ALDFG), commonly known as "ghost nets." These nets, primarily derived from fishing activities, continue to indiscriminately catch fish year after year. This phenomenon leads to the gratuitous entrapment and death of marine life, constituting a direct violation of two core Islamic ethical principles: the conservation of biodiversity and the stewardship of living creatures.

The consequences are multifaceted; ghost nets and other pollutants degrade the natural capital stock and impair the

---

<sup>28</sup> Yasir, M., Tanjung, D., & Siregar, R. S. (2022). Juridical analysis and sharia perspective on destructive fishing practices in Bedan Belawan. *SOSIOEDUKASI: Jurnal Ilmiah Ilmu Pendidikan Dan Sosial*, 11(1), 726-740: 727. <https://doi.org/10.36526/sosioedukasi.v14i1.5829>

<sup>29</sup> Yasir, M., Tanjung, D., & Siregar, R. S. (2022): 728.

resource flows generated by fisheries. Furthermore, they cause significant damage to the integrity of entire ecosystems, jeopardizing the long-term viability of marine species. This environmental degradation, in turn, directly threatens the economic stability and food security of human communities that depend on these marine resources, creating a cycle of ecological and economic harm.

The convergence between the tenets of Quranic environmental ethics and the principles of sustainable fishing suggests that developing public policies inspired by the Quran could be an effective strategy for promoting sustainable fisheries in Muslim-majority countries. By framing sustainability imperatives within a culturally and religiously legitimate discourse, these policies gain symbolic efficacy, thereby facilitating their implementation and long-term viability in Muslim-majority countries.

## H. Conclusion

This study examined the Quranic foundations for marine natural capital and their implications for sustainable fisheries governance. The analysis reveals a significant potential for synergy between public policy and the environmental ethics advanced in the Quran.

While the Quran emerged in the 7th century, its doctrine was only translated into modern sustainability frameworks in the 20th century, embodying that sustainability is no foreign concept to Islam.

Sustainable fishing practices are crucial to prevent overfishing and protect the marine natural capital, which is fundamental to ecological balance and critical for supporting human livelihoods and economic stability.

Within the Islamic ethical framework, man, as *khalifa* on Earth, bears the responsibility of preserving the *mīzān* (natural balance) ordained by the Creator. This entails upholding

principles of equity and *'adl* (justice) in the distribution and utilization of the flows emanating from natural capital. Consequently, anthropogenic threats to marine ecosystems—such as pollution, destructive fishing practices, overexploitation, and ecosystems degradation—are detrimental to the divinely instituted balance. Because such actions constitute environmental *fasād* (corruption), undermining the natural balance equilibrium and transgressing ethical and theological obligations to Allah.

Even if the Quran doesn't clearly address sustainable fishing, it unequivocally prohibits waste and corruption, commands the preservation of creation, and encourages fair distribution (intergenerational and intragenerational justice). These Quranic standards converge on the sustainable fishing practices which can be translated into actionable sustainability directives. In a way that condemns overfishing, reduces and/or avoids bycatch, and in the end protects the stock of natural capital. Consequently, seas have an aesthetic and ornamental aspect, a source of spiritual tranquillity and joy, cheerfulness, and peace that must be maintained. Fishing must therefore be carried out using sustainable tools that respect marine natural capital as a whole. While the Quran does not directly mention sustainable fishing, its directives inherently promote such practices, ensuring the conservation of natural capital as a stock that supports the flow of fish populations and marine ecosystems.

Practicing fishing according to Quran principles ensures the following ecological and ethical findings:

1. Maintaining healthy fish populations by avoiding overfishing, thereby perpetuating healthy ecosystems,
2. Reducing environmental degradation,
3. Fishing for the needed quantities and the targeted species allowed to be harvested, which implies reducing bycatch and waste,

4. Using fishing methods and equipment that avoid destructive impacts on ecosystems and habitats,
5. Biodiversity conservation,
6. Promoting intergenerational and intragenerational equity by ensuring equitable distribution and the wise use of the flows derived from the natural capital.

Regarding the Quran, the concept “health of ecosystems” makes complete sense, emphasizing the support of ecosystems’ diversity and productivity by maintaining their resilience and stability. This conceptual framework supports the preservation of the creation means, considering the integrity of marine natural capital and the preservation of the whole ecosystem and its habitats, so that harvesting levels allow fish populations to replenish naturally. That is the soul of the *khalifa*’s role. It means that all creation must endure, and that all species have the right to live; causing their extinction should be an offense to the Creator. It also means avoiding climate alteration, which protects the functioning of the whole system and thus the entire creation, by balancing the needs of man as a *khalifa* with his responsibility toward the Creator, thereby maintaining the natural balance.

Considering that wasting is obviously forbidden in the Quran, it is inadmissible, for example, to harvest only shark fins and throw the remainder of the still-living sharks back to the sea; it is a wasteful and cruel practice strictly reprehensible in Islam.

Even if sustainable fishing is not implicitly cited in the Quran, the latter calls to preserve the way of life and provide a balance and harmony in every human activity, combining both legal rules and ethical standards that converge toward this goal, and in fine, these principles encourage a harmony between man and nature, and thus are in adequation with sustainable fishing and the protection of natural capital, leading to sustainable fisheries management.

Divine wisdom has made all of God's creation exist for its own purpose (known or unknown to man), but also for the sake of other creations. It is in this sense that the use of the flows deriving from natural capital must be sustainable, respecting the capacity of regeneration for those with this faculty.

The findings suggest that effective policy implementation is achievable, but it requires moving beyond purely regulatory and punitive approaches. The success depends on two critical, intrinsically linked elements: the full assumption by man of his role as *khalifa* and the incorporation of a normative framework inspired by faith. A faith-based framework emphasizes the moral obligations of humans as decision-makers and primary actors—specifically, fishers—within the ecosystem.

The findings of this research demonstrate that Quranic precepts are not solely religious writings; they serve as the foundation for a vigorous and coherent environmental ethic. This ethic can be operationalized to govern marine natural capital and fisheries by explicitly shaping laws and policies and anchoring them in a local context. It also provides a critical framework for challenging dominant utilitarian management paradigms and proposes a holistic, morally legitimate alternative, thereby effectively bridging the gap between divine revelation and contemporary sustainability challenges.

This research thus demonstrates that Quranic verses provide a robust ethical framework for marine conservation, articulated around the principles of natural governance, ecological balance, and the rejection of all forms of wastefulness. Concretely, the operationalization of marine natural capital conservation translates into public policies that prohibit destructive practices and establish Marine Protected Areas or *himā* to ensure conservation. These measures can be accompanied by communication and education efforts targeting stakeholders, leveraging a faith-based discourse that fosters buy-in and accountability. Furthermore, it promotes holistic alternatives to

utilitarian models, making conservation a moral and spiritual obligation rather than a regulatory constraint.

Islam, through divine speech, can help achieve sustainability objectives related to fisheries, and different ethical values can provide a basis for this, as the Quran's statements and teachings have laid the groundwork for the use of fisheries resources. The specific rules governing fishing as an extractive activity in the Quran are justified by fundamental religious and ethical principles. These rules intend to regulate this economic activity and promote a harmonious relationship between humans and nature. They are therefore perfectly aligned with Quranic principles and modern concerns for sustainability and the preservation of natural capital, where effective faith-based policies must prioritize robust monitoring, continuous communication with all relevant parties, and complementary educational programs. These elements are essential for fostering a sense of shared responsibility and ensuring the long-term legitimacy and efficacy of conservation measures.

## REFERENCES

- Aburounia, H., & Sexton, M. (2006). Islam and sustainable development. Research Institute for Built and Human Environment, University of Salford. Retrieved from <http://www.irbnet.de/daten/iconda/CIB9051.pdf>
- Akerman, M. (2003). What Does 'Natural Capital' Do? The Role of Metaphor in Economic Understanding of the Environment. *Environmental Values*, 431-448. <http://www.jstor.org/stable/30302036>
- Akerman, M. (2005). What does 'natural capital' do? The role of metaphor in economic understanding of the environment. *Environmental Education Research*, 11(1), 37-52. <https://doi.org/10.1080/1350462042000328730>
- Bakloo, F. A., & Asma, A. (2018). Islamic Perspectives on Sustainable Development. *Pakistan Journal of Humanities*

- and Social Sciences, 6(4), 516-525.  
<https://doi.org/10.52131/pjhss.2018.0604.0061>
- Chaker, A. (2025). Harmoniser investissement en capital naturel et développement du secteur de la pêche en Algérie : une approche économique (Thèse de doctorat, Université Abderrahmane Mira Algérie), 325 pages.
- Citaningati, P. R., Alfianto, T. (2024). Blue Economics in Islamic Economics Perspective: Fiqh Bi'ah Approach. *Journal of Islamic Economic Laws*, 7(02), 128-160.  
<https://doi.org/10.23917/jisel.v7i02.5200>
- Costanza, R., & Daly, H. E. (1992). Natural capital and sustainable development. *Conservation biology*, 6(1), 37-46.  
<https://doi.org/10.1046/j.1523-1739.1992.610037.x>
- Dangor, S. (2023). Sustainable Development: Islamic Perspectives and Implementation. *AL-WASATĪYYAH*, 2(2), 4-39.  
<https://doi.org/10.58409/ipsajias.v1i2.22>
- Dariah, A. R., Salleh, M. S., & Shafiai, H. M. (2016). A new approach for sustainable development goals in Islamic perspective. *Procedia-social and behavioral sciences*, 219, 159-166.  
<https://doi.org/10.1016/j.sbspro.2016.05.001>
- Fenichel, E. P., Abbott, J. K. (2014). Natural capital: from metaphor to measurement. *Journal of the Association of Environmental and Resource Economists*, 1(1/2), 1-27.  
<https://doi.org/10.1086/676034>
- Gulzar, A., Islam, T., Hamid, M., & Haq, S. M. (2021). Environmental ethics towards the sustainable development in Islamic perspective: A Brief Review. *Ethnobotany Research and Applications*, 22, 1-10. Retrieved from <https://ethnobotanyjournal.org/index.php/era/article/view/3231>
- Hasan, Z. (2006). Sustainable development from an Islamic Perspective: meaning implications and policy concerns, *J.KAU: Islamic Econ.*, Vol. 19, No. 1, pp: 3-18. Available at SSRN: <https://ssrn.com/abstract=3072324>

- Hayat, I., Malik, M. S., Ali, M. W., Husnain, M., Sharif, M., & Haleem, A. (2023). The role of Islamic environmental ethics in the alleviation of climate challenges and the preservation of ecosystem. *Russian Law Journal*, 11(11S), 395-404. <https://doi.org/10.52783/rlj.v11i11s.1967>
- IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. S. Díaz, J. Settele, E. S. Brondízio E.S., H. T. Ngo, M. Guèze, J. Agard, A. Arneeth, P. Balvanera, K. A. Brauman, S. H. M. Butchart, K. M. A. Chan, L. A. Garibaldi, K. Ichii, J. Liu, S. M. Subramanian, G. F. Midgley, P. Miloslavich, Z. Molnár, D. Obura, A. Pfaff, S. Polasky, A. Purvis, J. Razzaque, B. Reyers, R. Roy Chowdhury, Y. J. Shin, I. J. Visseren-Hamakers, K. J. Willis, and C. N. Zayas (eds.). IPBES secretariat, Bonn, Germany. 56 pages. [https://files.ipbes.net/ipbes-web-prod-public-files/inline/files/ipbes\\_global\\_assessment\\_report\\_summary\\_for\\_policymakers.pdf](https://files.ipbes.net/ipbes-web-prod-public-files/inline/files/ipbes_global_assessment_report_summary_for_policymakers.pdf)
- Jarvis, D., LIGNIER, P., Kubiszewski, I., & Costanza, R. (2023). Natural Capital, Ecosystem Services, and Subjective Wellbeing: A systematic review. in Elizabeth Rieger, and others (eds), *Toward an Integrated Science of Wellbeing* (New York, 2023; online edn, Oxford Academic, 18 May 2023), 401-435: 403, <https://doi.org/10.1093/oso/9780197567579.003.0019>
- Khan, F., & Haneef, M. A. (2022). Religious responses to sustainable development goals: An islamic perspective. *Journal of Islamic Monetary Economics and Finance*, 8(2), 161-180. <https://doi.org/10.21098/jimf.v8i2.1453>
- McCook, L. J., Cai, L., Yeung, C. W., Chen, S., Ouyang, Z., Ang, P., Bordt, M., Cao, L., Chen, Z., Han, B., Huang, H., Lei, X., Lian, J., Li, F., Xue, G., Zhao, P. (2025). Marine ecosystem services and natural capital in China: Opportunities for improved

- understanding, valuing, and policy. *PNAS nexus*, 4(5), pgaf110: 2. <https://doi.org/10.1093/pnasnexus/pgaf110>
- Nair, M. S., & Ahmed, P. K. (2022). Environmental sustainability and contemporary Islamic society: A shariah perspective. *Asian Academy of Management Journal*, 27(2), 211-231. <https://doi.org/10.21315/aamj2022.27.2.10>
- Norgaard, R. B., Barnard, P., & Lavelle, P. (2007). Assessing and restoring natural capital across scales: lessons from the millennium ecosystem assessment. In Aronson, J. et al. (Dirs) *Restoring Natural Capital: Science, Business and Practice*. Island Press, Washington DC, USA, 36-43: 38.
- Rahman, A. H. A., Said, S., Salamun, H., Aziz, H., Adam, F., & Ahmad, W. I. W. (2018). Sustainable development from islamic perspective. *International Journal of Civil Engineering and Technology*. 9(4), 2018, pp. 985-992. [https://iaeme.com/MasterAdmin/Journal\\_uploads/IJCIET/VOLUME\\_9\\_ISSUE\\_4/IJCIET\\_09\\_04\\_111.pdf](https://iaeme.com/MasterAdmin/Journal_uploads/IJCIET/VOLUME_9_ISSUE_4/IJCIET_09_04_111.pdf)
- Reijnders, L. (2021) Substitution, natural capital and sustainability, *Journal of Integrative Environmental Sciences*, 18:1, 115-142, <https://doi.org/10.1080/1943815X.2021.2007133>
- Sarkawi, A. A., Abdullah, A., & Dali, N. M. (2016). The concept of sustainability from the Islamic perspectives. *International Journal of Business, Economics and Law*, 9(5), 112-116. Available: [https://ijbel.com/wp-content/uploads/2016/06/KLiISC\\_52.pdf](https://ijbel.com/wp-content/uploads/2016/06/KLiISC_52.pdf)
- Winnett, A. (2005). Natural capital: hard economics, soft metaphor?. *Environmental Education Research*, 11(1), 83-94. <https://doi.org/10.1080/1350462042000328767>
- Yasir, M., Tanjung, D., & Siregar, R. S. (2022). Juridical analysis and sharia perspective on destructive fishing practices in Bedan Belawan. *SOSIOEDUKASI: Jurnal Ilmiah Ilmu Pendidikan Dan Sosial*, 11(1), 726-740. <https://doi.org/10.36526/sosioedukasi.v14i1.5829>