



## Review article

# China's belt and road initiative (BRI) under the vision of 'maritime community with a shared future' and its impacts on global fisheries governance

Shijun Zhang<sup>a</sup>, M Jahanzeb Butt<sup>a,\*</sup>, Ali. M.A. Iqatish<sup>b</sup>, Khadija Zulfiqar<sup>b</sup><sup>a</sup> Institute of Eco-Environmental Forensics, Economic and Environmental Research Institute, School of Law, Shandong University, China<sup>b</sup> School of Law, Dalian Maritime University, China

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## ABSTRACT

'Maritime Community with a Shared Future' is the broad vision through which China aims to lead the global fisheries governance. This research has been motivated by China's ambition of equating its maritime development goals with sustainable development goal – 14 (Life Below Water). Through this research, the influential role of China in 'global fisheries governance' has been put through an 'ocean governance mechanism at various levels (national, regional, and international). Therefore, China's role in 'global ocean and fisheries' are discussed side-by-side, focusing on and supporting a better understanding of China's potential challenges and opportunities in world fisheries. The role of China in global and regional fisheries governance has been critically analysed throughout the discussion. It is also discussed how China plays its part in Regional Fisheries Management Organisations (RFMOs) and how this role-playing can be utilised through the Belt and Road initiative (BRI) for effective governance, conservation and preservation of marine fisheries. The scope of China's national ocean and fisheries legislation is framed to support China's stance in leading global fisheries governance. The conclusion followed the discussion in descending order suggesting ocean and fisheries governance improvement and appropriate advocacy options available to China.

## 1. Introduction

President of the People's Republic of China, his excellency Xi Jinping on World's Ocean Day, stated that one major part of the 'global maritime community relies their livelihoods on the fisheries' [1]. While highlighting the importance of 'marine biodiversity' and the role of China in 'maritime sustainability', his excellency also signified the importance of oceans' health and equitable development of fisheries resources [2]. This position of President Xi can be equated with the sustainable development goal 14 – life below water (SDG – 14) of the 2030 United Nations (UN) agenda, which urges sustainable utilisation of oceans and marine resources [3]. Both agendas mean that ocean conservation means sustaining the whole ecosystem, including preserving the habitat below water (including fisheries) and protecting the marine environment [3].

China has recognised the reciprocal role of oceans under the vision of 'building a maritime community with a shared future for the

\* Corresponding author.

E-mail addresses: [295521856@qq.com](mailto:295521856@qq.com) (S. Zhang), [jahanzebutt1988@gmail.com](mailto:jahanzebutt1988@gmail.com) (M.J. Butt), [aliqtaish@gmail.com](mailto:aliqtaish@gmail.com) (Ali.M.A. Iqatish), [khadijazulfiqar@gmail.com](mailto:khadijazulfiqar@gmail.com) (K. Zulfiqar).

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blue planet'. Under this vision, China had recently also proposed the '21st Century Maritime Silk Road' under the 'Belt and Road Initiative (BRI)' for the equitable utilisation of oceans and preserving the interests of the maritime community [4]. This initiative is human history's most significant infrastructure development project to link Asia with Europe and the Americas through Africa [5]. Such an initiative, under the vision of a 'shared future', aims at setting up diverse dimensions and wide-ranging maritime connectivity with an enhanced focus on multi-tiered ocean governance. For such purposes, China advocates for maritime peace, a joint governance of oceans, cooperation in fisheries management, support in marine technologies, and information-sharing mechanisms [6].

The fisheries-related industries of China have a significant role in the international economy and provide the Chinese government with a substantial role in global ocean governance [7]. This two-tier ocean and fisheries governance agenda has enabled China to address the fragmentation of diverse mechanisms involved in global marine ecosystems [8]. In this case, China requires global fisheries policy reforms as one of the leading powers in global ocean governance. Such reforms will help China protect its fisheries interests and improve its impact on global ocean governance [9]. Therefore, China is focusing more on the international-and-regional maritime cooperation for sustainable ocean development. Moreover, China's emergence as a significant player in global ocean governance has generated pressure on international organisations for substantial fisheries policy reforms [10].

Based on aforesaid, it can be argued that equating China's vision of a 'maritime community with a shared future' with SDG-14 requires a firm basis. Although both agendas recognise that the oceans are the shared pool of resources, there appear to be conflicting interests because SDG-14 calls for global cooperation and China aims at regional connectivity. Furthermore, China is the largest consumer of global fisheries and is challenged with high-level fishing (in its territorial sea and beyond exclusive economic zones), marine pollution and hybrid farming methods at sea [11]. Such practices by China appear unsustainable towards fisheries and marine aquaculture and challenge its narrative of a 'shared future for the maritime community'.

In the field of global fisheries, China is looking to collaborate under the principles of international law. This is a critical approach to fisheries governance under MSR because of the interconnectedness of marine ecosystems and the myriad activities that will be part of China's BRI [12]. Although China is evolving new technologies and means of governance for global fisheries, BRI still faces several challenges in ensuring adequate policing of fishing activities [13]. The dynamics of fisheries governance under the BRI appear lucrative but question the sustainability of marine habitat and ocean ecosystems. Therefore, it is suggested below through this research that China focus on its regional and bilateral ocean regulatory arrangements for cooperation in fisheries governance, possibly leading towards effective SDG-14.

As China's role in globalisation and regional economic integration progress, oceans have become a foundation and bridge for the Chinese market [9]. For fisheries development, China requires technological cooperation and information sharing. Developing the blue economy is a new initiative of China under its BRI. It requires more consensus to usher in a new era of increased focus and dependence upon maritime cooperation and development [14]. The literature on China's role in fisheries governance is limited to the 'economic' and 'political' perspectives. The literature has also not explained how China's latest visions of BRI and shared future can be equated with global agendas (such as SDG-14) [15]. Therefore, this research analysed 'international law' dimension of the global fisheries through which China is manoeuvring for its own good. The core argument and motivation of this research is to recommend China that in becoming a global player, China shall also take a 'sustainability' or SDG-14 perspective of fisheries governance.

This research has taken an analysis-based approach to examine China's role in global fisheries policy and ocean governance. In the next section, the existing literature has discussed and analysed the role of China in global fisheries governance. Following the argument that China requires a global resetting of fisheries and ocean governance through regional and national initiatives, this research analysed China's national fisheries governance mechanism and its influence on regional initiatives. The research suggested that China shall coordinate marine scientific research (MSR) and technological development (as provided in SDG-14) to lead global fisheries governance. This position of China shall enable it to equate its 'BRI' and 'Shared Future' with 'SDG-14'. For such purposes, it is also recommended that China call for collaboration to increase scientific knowledge and research capacity to improve oceans' health and enhance the contribution to developing the BRI States.

## 2. Literature review

### 2.1. The existing global fisheries regime

The United Nations Convention on Law of the Sea (UNCLOS) is a regulatory framework that codifies customary international law and creates international organisations to oversee particular global oceans and fisheries issues [16]. The relevant international organisations regulating fisheries are the World Trade Organization (WTO), the International Maritime Organization (IMO), the United Nations Divisions for Ocean Affairs and the Law of the Sea (DOALAS), the Regional Fisheries Management Organization (RFMO), World Wildlife Fund (WWF), International Oceanographic Commission (IOC), International Seabed Authority (ISA), International Tribunal for the Law of the Sea (ITLOS) and Commission on the Limits of the Continental Shelf (CLCS) [15,17].

Mainly, the Food and Agriculture Organization (FAO) at the international level aims for the conservation and governance of fisheries under the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, Code of Conduct for Responsible Fisheries, International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, and Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing [18–21]. The Agreement relating to the Implementation of Part XI of the UNCLOS (Implementing Agreement about the Area and its resources) and the Agreement Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UN Fish Stocks Agreement) are specific instruments regulating marine fisheries [22]. The given international instruments empower coastal States to set their policy objectives within the broad framework to govern fisheries. Under

these regulations, State employs experts to advise on catching particular stock of fisheries with some proportion under a system known as ‘total-allowable catch (TAC)’ under ‘maximum sustainable yield (MSY)’ [23].

While embracing TAC and MSY, UNCLOS requires a determination reflecting fisheries science [24]. The extent of TAC and MSY refers to economic factors which shall not increase pressure on fish stocks in particular areas. Therefore, during the Earth Summit, which constructed three international agreements for ‘sustainable development’, including the United Nations Declaration of Environment and Development (Rio Declaration), United Nations Framework Convention on Climate Change (UNFCCC), and Convention on Biological Diversity (CBD) focused and urged a lot on the preservation of marine fisheries [4,25–27]. Moreover, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Biosafety Protocol mainly advised preserving marine genetic resources, including fisheries [28].

Such an approach to fisheries governance at the international level appears to be well maintained. However, there exist concerns regarding proper fisheries governance because managing ‘State’ conduct to ensure TAC and MSY regulations has been almost impossible over the years [29]. The allowable catches remain uncontrolled by the States, allowing over-fishing and significantly damaging marine ecosystems. Therefore, a recent study co-sponsored by the World Bank and FAO reported that marine fisheries incur a significant loss annually [30]. The report further mentioned that States with large populations (including China and India), which stems from ineffective governance securing economic interests, caused and resulted in biological over-exploitation.

## 2.2. An overview of the role of China in global fisheries governance

China actively participated in the legislation of the UNCLOS and initiated a formal process of national legislation on ocean governance in 1982 [16,22]. Owing to its interests in international marine and fisheries development, China was among the first group of States that signed UNCLOS – III. UN General Assembly included China as a member of the UN-Seabed Committee [17]. Therefore, China’s sensitive position in the UNCLOS – III negotiations also impacted the Chinese stance in the formulation of Implementing Agreement related to the Area and its resources and the UN Fish Stocks Agreement [22].

In order to secure a fishing quota, access to high-seas fisheries and management of vessels, China follows all the international fisheries agreements. China is a regular member of the FAO and participates in negotiations and developing international regulations on the conservation and governance of fisheries under the relevant agreements mentioned above [18–21]. As a party to the Earth Summit (conventions and declaration), CITES, and the Biosafety Protocol, China actively participates in preserving marine genetic resources and fisheries [4,25–28]. China joined relevant international organisations, including WTO, IMO, DOALAS, RFMOs, WWF, IOC and ISA, to ensure its presence in global fisheries governance systems [15,17].

All the international legislative developments from 1990 to 2000 highly impacted global ocean governance. In the given global circumstance, China adopted its own Ocean Agenda in 1996 in line with agenda 21 of the Rio Declaration, which deals with ‘ocean sustainability’ precisely dealing with fisheries [31]. Under this agenda, China recognises that a new joint mechanism of ocean and fisheries governance is based on the cooperation of regional and global organisations. Such activeness in global ocean governance allowed China to shape international marine environmental protection, scientific research, shipping, deep-sea resources and navigational safety law [32].

China is vigorously involved in the UN mechanisms for ocean governance, including the Sustainable Fisheries Resolution Consultation, Informal Consultation Process and Ominous Resolution in the Oceans and Law of the Sea, and Global Environment Reporting Assessment [33]. In addition, China is involved in WTO rules on fishery catches and proposed to treat the least developed, developing and developed States differently. Such a position of China is based on a ‘cap-based’ approach to reducing fisheries subsidies for equitable utilisation of marine resources for equal social and economic development [34]. Therefore, China joined the negotiations

**Table 1**  
Ratification of RFMOs instruments by China.

Regional Organisation	Agreement Establishing	Region	China became a member in
International Commission for the Conservation of Atlantic Tunas (ICCAT)	International Convention for the Conservation of Atlantic Tunas, 1966.	Atlantic Ocean Region	1996
Indian Ocean Tuna Commission (IOTC)	Agreement for the Establishment of the Indian Ocean Tuna Commission, 1993.	Wider Indian Ocean Area and South China Sea	1998
Inter-American Tropical Tuna Commission (IATTC)	1949 Inter-American Tropical Tuna Convention (original bilateral convention 1949, and subsequent Antigua Convention, 2010).	Eastern Pacific Ocean	2004
Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)	The Convention for the Conservation of Antarctic Marine Living Resources, 1982.	Antarctic Ocean	2007
North Pacific Fisheries Commission (NPFC)	Convention on the Conservation and Management of the High Seas Fisheries Resources in the North Pacific Ocean, 2012.	North Pacific Ocean	2015
South Pacific Regional Fisheries Management Organization (SPRFMO)	Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean, 2012.	South Pacific Ocean	2013
Western and Central Pacific Fisheries Commission (WCPFC)	Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, 2000.	Western and Central Pacific Oceans	2005

for 'the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (ABNJ-Treaty)' [35]. China intends to fill the provided gaps for fisheries preservation through a new international treaty on the sustainable utilisation of marine resources.

### 2.3. An overview of the role of China in regional fisheries

The fundamental concern is that marine resources, including fisheries, can be equitably utilised under a new treaty, and China is concerned about the potential impact of any new agreement on ocean governance. Therefore, under the given international commitments, China is improving its regional framework and participating in other regions to cooperate on the fisheries resource conservation and governance measures. In doing so, China has joined several RFMOs and helps these regional organisations develop and implement equitable fisheries utilisation mechanisms. The RFMOs include the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), Indian Ocean Tuna Commission (IOTC), North Pacific Fisheries Commission (NPFC), Inter-American Tropical Tuna Commission (IATTC), International Commission for the Conservation of Atlantic Tunas (ICCAT), Western and Central Pacific Fisheries Commission (WCPFC) and South Pacific Regional Fisheries Management Organization (SPRFMO) (See: [Table 1](#)) [36–42].

China's membership in RFMOs has become particularly important for international ocean governing organisations because of the active interests of all in combating Illegal, unregulated, and unreported fishing (IUU Fishing) [43]. This shift in China's fisheries policy from inward to outward has challenged the legacy of global players in the aquaculture market, including the United States, Japan and the United Kingdom [15]. In such a scenario, China has shown its ability and capacity to handle fisheries governance diplomatically and suggested that IUU fishing activities 'shall be determined by the flag Member following its national legislation and regulations' or 'the relevant laws of the RFMOs' [44,45]. Such a preference for national and regional legislation under the expanded framework of international law provided by China empowers the State and regional authorities/organisations in combatting IUU fishing more precisely (for further details of China's membership, see: [Table 1](#)).

As China is a member of several RFMOs, there is a convincing opinion that Chinese presence is about commercial interests in allowable catches [46]. This may be argued because China has not ratified the UN Fish Stocks Agreement, Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas and Code of Conduct for Responsible Fisheries [34,47]. Moreover, China, not a party to the 2001 Plan of Action on IUU Fishing to control and monitor IUU fishing vessels as a binding Port State Measures Agreement, confronts the overall Chinese vision of 'sustainable marine fisheries' [44]. It is also claimed that China does not sign or ratify the aforementioned international regulations because of its national administrative structure. The existing administrative system of China allows provinces to enter into an agreement related to fisheries under public-private partnerships (PPP) arrangements [48]. International stakeholders have raised this concern repeatedly, and feedback indicates that this issue is the leading cause of the perception of China's incapacity in dealing with IUU fishing [15]. Moreover, the States in the European Union are concerned about China's approach to the PPP fisheries agreement because of its limiting actions of coastal States in tackling IUU fishing.

Given the above, China is shaping international oceans and fisheries governing organisations and positively seeking an aspired role of being a legitimate and standard maritime power in the international community. As China's global actions on fisheries are aligned with international regulations and commitments, it appears that such arrangements will allow China to lead global ocean and fisheries governance soon. However, China is challenged by the tangible interests of the other influential actors (states like the US, Japan and the UK), which advocate fisheries conservation and equitable governance. Under such a challenge, China is striving to improve its national character to be seen as influential [44]. Still, the Chinese leadership has not substantially addressed the challenges of sustainable governance of global fisheries [3]. Therefore, more stringent policy ideas under the existing vision of the 'maritime community with a shared future' appear to be the next step in helping China's goal of becoming a global player in fisheries.

To acquire a legitimate title of 'global maritime power' in the 'international fisheries market', China shall advance its geopolitical position through RFMOs. In this sense, a strong argument already exists that China shall work on its environmental responsibility and must take global actions for sustainable ocean governance [43]. As China represents fisheries governance across global and regional organisations, there exists an opportunity to negotiate on 'sustainability actions' under SDG-14 and create and lead new multilateral methods of ocean governance [8]. Moreover, China already has a moral dimension to lead global ocean and fisheries governance based on its regional initiatives and plans for large-scale marine ranches and offshore aquaculture production to help satisfy seafood demands. In this regard, China's consistent approach towards sustainable fisheries and oceans offers a viable explanation of China's aspiration to become an international maritime power and leader in global ocean and fisheries governance.

### 3. Methodology

The discussion above portrays that China is already involved in multiple and multi-level governances of fisheries at global and regional levels. The current approach of China in global and regional fisheries governance is top-bottom. China required a bottom-up approach to equate its BRI and Shared Future initiatives with SDG-14. Therefore, the following parts adopted a methodology of 'policy review', and it is suggested that China adopt an outward sustainability policy to equate its role in fisheries governance with SDG-14 [49]. What initiatives are suitable for China to improve its national fisheries policy and its external expansion in the regional and global fisheries governance is also recommended.

### 3.1. China's belt and road initiative: an analysis of the challenges and opportunities in regional fisheries governance towards SDG-14

In 2012, the 18th Chinese Communist Party (CPC) meeting decided to make a constant effort to develop China's leadership in the global maritime community [50]. During the same session, the vision of MSR and the BRI was presented under China's vision of a 'maritime community with a shared future'. BRI combines an extensive network of terrestrial and maritime routes to link over 100 States. In pursuance of the fisheries development under the BRI, the 13th Five-Year National Fishing Industry Development Plan of China focuses on expanding investment in overseas fishing capacity [51]. The plan also highlights that the Ministry of Agriculture and Rural Affairs (MARA), under the mechanism of MSR, will negotiate new bilateral fisheries agreements. In addition, China's expansion in its operations by building ports, processing facilities and logistic hubs allows Chinese fishing companies through bilateral arrangements and RFMOs for fishing operations. Such ventures appear to be aid projects that support the host State in exploiting its resources and creating mutual economic benefits.

In 2021, China published its 14th Five-Year Plan (2021–2025), reiterating the 'eco-civilisation' policy prioritising sustainable development of the BRI [52]. The plan entitled 'opinions on Promoting the High-quality Development of Pelagic Fisheries during the 14th Five-Year Plan' outlines broad goals for developing fishing industries through 2025 [52]. According to its guiding opinion, this 14th plan aims to construct 'sustainable pelagic fisheries' and build a 'sustainable marine ecological environment' [52]. Moreover, the plan focuses mainly on marine pollution mitigation and ocean biodiversity preservation goals. Through this plan, China is likely to further engage in global ocean governance as a State initiative to 'advance global legislation concerning basic maritime law in an orderly manner' [52]. Under this plan, three to five national offshore fishing bases are constructed to facilitate research, trade, vessel maintenance and training to improve fisheries production and trade with other BRI States.

As a principal BRI component, MSR involves expanding existing ports and constructing new ports, including developing new maritime trade routes. International ocean and fisheries governing organisations have also examined the potential impacts of BRI and MSR development on fisheries, marine habitats, and overall ocean sustainability [53]. These organisations criticised BRI because there remains scepticism about implementing strict marine environmental policy and ocean sustainability initiatives. The new and advanced plan allows China's more active presence in the BRI States in Africa, South Asia and South America. There is growing concern by the local stakeholders and environmental organisations related to the marine environment and fisheries preservation in the host State [12]. Moreover, there are strong arguments that China is not very active in leading initiatives in RFMOs, and even playing a passive and reactive role in some circumstances. Furthermore, a recent legacy of IUU fishing activity has made China an unsustainable player in global fisheries governance under the BRI [9]. China is attracting increasing international criticism for pursuing short-term benefits under BRI at the expense of long-term sustainability.

Under the 14th Five-Year Plan, China is negotiating with the BRI States in East Africa, South Pacific and Western Asia (including a few African States) and is investing in further expansion into South America and Southern Asia for developing mechanisms for Distant water fisheries (fishing in Exclusive Economic Zones of other States also referred to as DWF) [52]. Since the release of the 14th five-year plan, the Chinese fishing companies are also engaged in new fisheries agreements which significantly increase China's annual catch [52]. As China has always been under strict scrutiny from international fisheries and ocean governing organisations regarding DWF, there is new criticism of new fishing practices under BRI. The non-governmental organisations also state that it is tough to scrutinise the scale and impact of China's DWF, and the BRI's fisheries policymaking and rules enforcement appears weak and somehow contradictory [54].

In response to the above criticism, China may expose its plan for strict control of DWF and effective implementation of preferential policy, which supports sustainable processing facilities, green marketing, research and development in the fisheries sector [52]. In doing so, China shall portray its measures in tackling the potential impacts of such development on the fisheries and marine habitat. China shall support its claims through the state-backed policy of building seafood-processing plants in BRI countries, especially in

**Table 2**  
Existing role of China in RFMOs.

Maritime Silk Route	Multilateral Arrangements with BRI Countries	RFMOs	Further Development of Fisheries Agreement
Partially Connected with China-Indo-China Corridor (CICC)	China-South China States-Japan-Korea- New Zealand-Australia	North Pacific Fisheries Commission (NPFCC), South Pacific Regional Fisheries Management Organization (SPRFMO) and Western and Central Pacific Fisheries Commission (WCPFC)	Agreement on Fisheries between the People's Republic of China and Japan of 1997 and Agreement of Fisheries between the Republic of Korea and the People's Republic of China China-ASEAN Maritime Cooperation Fund and Agreement between China and Vietnam on Fisheries Cooperation for the Gulf of Tonkin (Sino-Vietnamese Fisheries Agreement)
None	China-South American States	Inter-American Tropical Tuna Commission (IATTC)	None
China-Pakistan Economic Corridor (CPEC) and Bangladesh-China-India-Myanmar Economic Corridor. (BCIMEC)	African, South Asian and Western Asian States.	Indian Ocean Tuna Commission (IOTC)	Development of Fishing Harbours in Sierra Leone and Djibouti

African Countries, which could be ‘key to bolstering China’s food security’. Moreover, China can also describe its agreement with Sierra Leone and Djibouti to build fishing harbours and ports to centralise fishing activities for sustainable fisheries [55]. As China has been invited to fund to increase the development of fisheries by the Pacific Island States under an agreement of policing by the host States, due diligence in fishing activities shall be advocated by China in this region.

Countering the argument of unsustainable maritime cooperation appears to be challenging for China. However, China can argue that it strictly follows the UNCLOS provisions in relation to fisheries governance. This claim of China is evident through the Agreements on Fisheries between China and Vietnam, China and Japan, and China and South Korea [56,57]. The agreements of China with Vietnam, South Korea and Japan are about cooperation under the UNCLOS for marine resources in semi-enclosed seas (areas surrounded by two or more states and may consist entirely or primarily of the territorial sea or EEZ of the coastal states). Related to the governance of the marine resources in the Pacific Ocean, all the agreements forward bilateral conduct of exploitation and conservation of the shared fisheries resources under agreed zones as provided through the UNCLOS provisions [56,57]. It can be argued that in spirit, the agreements followed the RFMOs provisions of the NPFC, SPRFMO and WCPFC because they established Joint Fisheries Commission (as mentioned in Table 2) [56,57].

In following the provisions of the UNCLOS, China has also participated in the Regional Code of Conduct in the South China Sea adopted by the member states of ASEAN and China [58]. Under this code, in 2011, China-ASEAN Maritime Cooperation Fund was initiated to implement projects related to maritime connectivity, marine environmental protection, scientific research and fisheries [59]. This fund played an essential role in developing fisheries preservation in the South China Sea area. Fortunately, this fund has also promoted cooperation among the conflicting States in the South China sea through an institute, namely the South China Sea Fisheries Research Institute (SCSFRI is part of the Chinese Academy of Fishery Sciences) [59]. With concerns about conserving the depleting shared fisheries in the South China sea, China shall consider bringing this Maritime Cooperation Fund as part of the WCPFC.

The South China Sea has garnered international attention, which involves the overlapping claims of six governments to territorial sovereignty and maritime rights [58]. China pursues several interests through its claims to territorial sovereignty and maritime rights in the South China Sea. While the South China Sea accounts for a substantial portion of China’s annual fish catch, China shall consider offering some concessions in the dispute to improve ties with the neighbouring States. In doing so, China shall adopt a ‘sustainability’ approach which appears to be unprecedented [60]. Still, through effective implementation of SDG–14, mutual economic benefits could be developed and a stable environment.

This approach suggests several possibilities for China to continue accumulating global leadership in fisheries and ocean governance. Moreover, China will feel more confident about managing its claims, and other States could threaten those in these disputes and be less likely to use force. In case of any entanglement that China might view as increasing assertiveness by any of the States in the dispute. China might then review its position as a global leader in ocean and fisheries and may form itself as a regional player. At this stage, other States are somehow weak compared to China, which allows China to negotiate as a soft power in the ocean and fisheries governance.

As China is already engaged in cooperation and dialogue with all the BRI states and has joined several RFMOs, there shall be further expansion of MSR agreements for the sustainable utilisation of fisheries. There are multiple pathways to get stakeholders involved, especially as species boundaries rarely coincide with State boundaries of the corridors of BRI, including the China Indo-China Corridor (CICC), China-Pakistan Economic Corridor and Bangladesh-China India-Myanmar Economic Corridor [4]. In doing so, China may actively dialogue and expand the RFMOs operating in BRI areas, such as WCPFC, SPRFMO, NPFC, IATTC and IOTC (as mentioned in Table 2). China may advance a vision that fisheries development under the BRI seems to be an opportunity for the coastal States in the RFMOs (as mentioned in Table 2) with a meticulous governance mechanism.

Through the discussion above, it can be somehow settled that China’s global fisheries governance initiatives align with SDG–14. China’s BRI aims at sustainable development with a strong impetus on ecosystem preservation, including ocean and fisheries sustainability through effective governance [14]. China faces several challenges in acquiring a leading role in global governance to implement SDG–14. BRI, as a project of an extraordinary magnitude, may be an ideal opportunity for developing a central governing body to incorporate best practices of sustainable development and regional conservation actions [53]. BRI is a project of scale which provides an opportunity for a central governing body to develop and implement an overarching ocean and fisheries governance framework and policy.

China proposed the G20 Action Plan on the 2030 Agenda for Sustainable Development during the 2016 Summit of the Group of 20 [61]. After that, China also played a significant role in the High-Level Political Forum on Sustainable Development in implementing the 2030 Agenda during the BRICS Summit in 2018 [61]. Through both initiatives, China recognised and advocated enormous potential for significant economies to cooperate in the sustainable development of oceans and marine resources. Such role of China promotes maritime cooperation in a systemic manner which supports the Chinese vision of sustainable fisheries. Furthermore, as per SDG–14 (Targets – 14.7 and 14.a), China supports small island developing countries and least-developed States for sustainable fisheries governance through technical assistance, MSR and the development of effective management schemes [61].

The fundamental problem is that China has not portrayed or advocated its initiatives through practical means. Through the BRI initiative, China is already advocating that the States cooperate for sustainable development by enhancing environmental protection mechanisms and building a green Silk Road. Moreover, China can develop regional marine-biodiversity assessment frameworks that can inform conservation policy by highlighting potential hotspots of fisheries and aid in developing governance strategies at multiple scales under BRI. A further step under the environmental protection mechanism for fisheries conservation under the BRI framework could be effective through communication regarding the potential ecological impacts of any development.

### 3.2. China's national governance mechanism towards sustainable fisheries

China is a State with extensive coastlines of 18000 km in the Pacific Ocean, which borders the Bohai Sea, Yellow Sea, East China Sea and South China Sea [62]. As a State with favourable marine geography, China expanded its fisheries policy initially to become a player in the global marine aquaculture market [48]. China's outward and rapid expansion in fisheries development depended on its inward policy developed based on international agreements (as mentioned in Table 2) [15]. After launching the 'Reform and Open Door' policy in 1978, China enacted the Regulations on the Production of Aquatic Product Resources of 1979, the Standards of Fishery Water Quality of 1979, the Maritime Traffic Safety Law of 1983, the Fisheries Law of 1986 (amended in 2000, 2004, 2009 and 2013) and the Regulations on the Implementation of the Fisheries Law of 1987 [63–65]. Such legislation encouraged scientific research and the utilisation of technology to increase the growth and utilisation of fisheries production.

The Fisheries Management Bureau (FMB), formerly the Department of Fishery Administration under the Ministry of Agriculture (previously directly under the control of the State Council), is the principal regulator of fisheries and aquaculture [66]. Another critical regulator is the Ministry of Natural Resources (MNR) (formerly State Oceanic Administration or SOA) which somehow overlaps with the functioning of the FMB [67]. MNR, under the Fisheries Law, coordinates with the Coast Guard China to prevent illegal, unreported, and unregulated fisheries, protect the marine environment from pollutants and discharge, and organise and conduct scientific research. Moreover, MNR is responsible for marine mineral resources preservation and exploitation under the Mineral Resources Law of 1986 and Regulations on Exploitation of Offshore Petroleum Resources in Cooperation with Foreign Enterprises of 1982 [67].

Under the Fisheries Law, the FMB is empowered to formulate programmes, plans, policies, and guidance related to fisheries. For such purposes, FMB coordinates with MNR for scientific research of marine living resources [68]. However, the FMB and MNR are not directly the governing authority because the provinces in China are empowered to administer fisheries in their jurisdictions. In provinces, their fisheries departments are liaised with the provincial government and guided by the FMB and SOA (as mentioned in Table 3) [48]. Therefore, the national legislation on Fisheries is implemented in provinces as a procedure and in terms of rules and regulations.

Under the existing policy framework, China encourages and support all kind of fisheries production [69]. There are procedures for obtaining licences for fishing operations in the territorial sea and exclusive economic zones, including deep-sea [69]. In cooperation with the FMB, the provincial fisheries department regulates the licensing operations [48]. The primary purposes of the licensing procedures are to ensure that the fishing operations are sustainable and not over-exploitative. Therefore, the provincially appointed agencies inspect and examine the fishing vessels before any such operations. Moreover, the licences are provided on conditions that prohibit fishing in off-seasons, prohibited zones, through gear and methods which may harm the stocks.

This overview suggests that a multi-tiered approach existed in China, and provincial governments somehow regulated their policy to overproduce fisheries. Due to such policy development, China experienced massive growth in fisheries production. This paved the way for China to develop the world's largest fishing fleet, and to date, the Chinese fisheries share in the global market has been expanded more than ten times [64]. In addition to the fisheries-production volume, there has also been a massive growth in fishing-sector labour and marketisation. As the largest fishery trader and processor, China reserves a significant position in the global fisheries market.

However, the national policy regime, accompanying enforcement mechanisms and provincial legislation concerning fisheries have loopholes and shortcomings. There are negative externalities mainly due to overfishing, and today China is facing critical challenges to an essential requirement of sound fisheries governance [70]. In pursuit of more catches, basic fishing rules have been ignored, which caused the overexploitation of fisheries resources [11]. Moreover, marine pollution emerging from the land has had a harmful impact on the fisheries. Therefore, fisheries stocks declined, and due to over-exploitation, demersal marine living resources have been severely destroyed. Such practices and rapid development in China also generated pressure on the fragile global marine fisheries and ocean

**Table 3**  
National legislation of China for fisheries governance.

Convention impacting Fisheries Governance	Governing Authority	Ratified through the local law
United Nations Convention on the Law of the Sea (UNCLOS).	Ministry of Natural Resources, Ministry of Agriculture and Rural Affairs, Fisheries Management Bureau and Coast Guard China.	Marine Environmental Protection Law, Regulations on the Production of Aquatic Product Resources, the Standards of Fishery Water Quality, and the Fisheries Law.
Agreement for the Implementation of the Provisions of UNCLOS of December 10, 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (Fish Stocks Agreement).	Ministry of Natural Resources, Ministry of Agriculture and Rural Affairs, Fisheries Management Bureau and Coast Guard China.	Regulations on the Production of Aquatic Product Resources, the Standards of Fishery Water Quality and the Fisheries Law.
Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, Code of Conduct for Responsible Fisheries, International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing.	Coast Guard China and Port Authorities.	Maritime Traffic Safety Law and Provisions on Administration of Foreign-Related Marine Scientific Research.
Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing.		

governance.

Such unsustainable fishing is realised by China, as short-term financial incentives and long-term damage to marine resources drive it. Therefore, since the 1990s, China has established a strict policy of fisheries preservation [15]. MARA's main task is shifting from production to improving fisheries' efficiency and quality. China has invested a lot of resources in the blue economy, a marine-related policy with a plan favouring conditions for sustainable fisheries development. This began in 1994 with the abovementioned policy, known as 'China's Ocean Agenda 21', which was developed under agenda 21 of the Rio Declaration. This so-called China's Ocean Agenda – 21 'about the worsening of the marine ecological environment, which has resulted in a dramatic downturn with respect to the abundance of fisheries; the main problems that the marine fishery resources in China face are an excess of total catch and a decline in traditional fishery resources' [71].

China Ocean Agenda – 21 focuses on conserving marine living resources, covering marine environmental protection, preservation of fisheries and sustainable development of ocean-related industries [72]. It also identifies plans for improving and restoring the marine environment and fisheries resources as urgent, important and feasible. While prioritising the endangered species as a commitment to CITES, this agenda is about the preservation of scarce fisheries [72]. Therefore, in regulating fisheries activities and for effective implementation of the new agenda 21, China has also enacted and revised a series of laws and regulations in the fields of MSR and environmental protection [72]. In 1996, China enacted the Provisions on Administration of Foreign-Related Marine Scientific Research, and in the years 2000, 2004, 2009 and 2013, substantive amendments were made to the Marine Environment Protection Law [73–75].

In 2000, China adopted the Fisheries Law of 2000, and some statistics show that under the new law, there are over a thousand provincial and local legislation formulated and implemented for fisheries preservation [76]. The primary purpose of this new law is for the rapid development of a centralised fisheries governance system which covers production, resource conservation, vessel operations, fishing port and harbour governance, and deep-sea water fisheries. The FMB, MNR and MARA recently joined hands to develop a joint mechanism for marine resources preservation, including fisheries [76]. Under new policy provisions, Chinese vessels are moving more towards EEZs and high seas and transitioning from traditional fishes to other marine living resources (such as shrimps, anchovy, etc.) [76]. Since then, China has been in the process of developing an outward fisheries policy, and most recently, there have been structural changes.

Faced with severe pollution and declining fish stocks in its own coastal waters, China adopted a national 'eco-civilisation' policy in 2013 [77]. As this new policy prioritises environmental protection over unsustainable production, the State Council of China has directed FMB, MNR and MARA to emphasise promoting the sustainable and healthy development of marine fisheries. The authorities are cracking down on IUU fishing and improving administrative initiatives to reduce marine pollution [78]. The authorities are also working on renovating marine biodiversity and have already restored a lot of wetlands in the Yellow and Bohai Seas (a semi-enclosed area in the Pacific Ocean with high ecosystem importance). As China now recognises the importance of oceans and heavily relies on fisheries, there is a strong emphasis on equitable exploitation/utilisation of marine resources.

China has recently implemented the three important sub-goals or targets of SDG – 14 related to fisheries, i.e., conservation of marine resources, strict regulation of fishing vessels and assigning more marine protected areas. China is continuously improving the fishing system in compliance with the SDG – 14.4 maximum sustainable yields and further attempts to provide an environment for the restoration of marine habitat [61]. Most recently, China implemented the revised Provisions on the Administration of Fishery Licensing, which will require fishing vessels to improve management. The new licensing system will also require the provinces for approval from the MARA, and it is expected to improve the provincial fisheries governance mechanisms [61].

#### **4. Discussion on the potential of China's 'maritime community with a shared future' in implementing SDG – 14 for sustainable fisheries**

Various legal and political initiatives have been forwarded in response to the depletion of global fisheries. Such initiatives require a 'hardened' scale of international law which shall define national and local law governing fisheries with some particular MSY. In making MSY a more resilient concept in multilateral fisheries governance, China shall forward a 'precautionary approach' as a reference point introduced in the UN Fish Stocks Agreement. Under the BRI, China shall engage in some re-interpretation of the global fisheries agreement to create effective mechanisms for TAC and MSY. The regional fisheries and ocean agreements might offer a basis for further reinterpreting global fisheries policies, even though TAC and MSY remain the point of departure.

Previous practices of China over global fisheries have generated challenges to the ocean and marine habitat sustainability. China already acknowledged that it could not lead global fisheries without systematic policy, legal reforms, and operative compliance with international regulations [68,79]. The structural reforms in China's ocean governance had impacted its inward and outward fisheries policy. The reform process adopted by China is about trade-offs between the environment and development, which is the basic agenda of SDG – 14's primary agenda [61]. An attempt is to develop a joint mechanism of fisheries governance and marine environmental protection. The new approach of China under the 'eco-civilisation' policy is evident through MNR's latest report, which involves multiple stakeholders under some innovative practices for fisheries preservation [53]. MNR's latest report also shows that China is actively working to develop circular economy theory into practical fisheries policy.

For effective implementation of SDG – 14.4 (regulation to end overfishing and IUU fishing) based on science and data, China is already improving and further attempts to provide a systematic criterion of fisheries governance [61,80]. As a developing State, China is also following SDG – 14.6 under the WTO rules for the prohibition of fisheries subsidies, contributing to overcapacity and overfishing. Furthermore, based on SDGs – 14.7, 14.a and 14.b, China is assisting small island developing and least developed States for sustainable fisheries governance through mutual economic benefits, sharing of scientific knowledge, developing research capacity and



transfer of marine technology [61]. At this stage, it can be said that China is trying to ‘enhance the conservation and sustainable use of fisheries by implementing UNCLOS (along with other relevant international legal instruments for ocean sustainability)’ as provided in SDG – 14.c that requires global governance for ‘the future we want’ [61].

The above-identified vision of a ‘maritime community with a shared future’ is a critical pillar to push China’s ambitious plans to continue growing and becoming a leading maritime power. China has become a significant player in global fisheries governance through such practices over the last decade (as mentioned in Table 4). A careful examination of the national legislation and particular regulatory rationales that have shaped the outward expansion of China’s fisheries governance model shows vigorous concerns among Chinese policy actors regarding the sustainable functioning of global ocean governance. Such an attitude of China will further acknowledge the existing challenges in domestic and global governance mechanisms. In this scenario, a joint governance of oceans and fisheries becomes critical, and China attempts to develop consistency between the two [81]. Therefore, the core argument at the end is developed on two bases: how far China has integrated its ocean and fisheries governance and how it will impact global ocean and fisheries governance.

Currently, there is a lack of coordination among the RFMOs, some of whose jurisdictions overlap. Such overlapping challenges the aims of conversation and effective utilisation of marine biodiversity [17]. This issue came into the limelight during the ongoing negotiations being conducted for ABNJ [61]. While there has been passed a significant resolution on a road map of effective implementation of biodiversity beyond ABNJ, China can use this as an opportunity to renegotiate the jurisdictional issues among RFMOs [61]. For this purpose, China can redefine the proprietary nature of the fisheries, which impacts the ‘principles of zones’ under the UNCLOS through this new ABNJ negotiations. Moreover, China can think about leading the ongoing negotiations for ‘exploitation and environmental regulations’ in ABNJ because the stakeholders are still unable to reach a consensus on primary issues, namely, a charge of resources, information sharing and environmental protection. Therefore, China shall also think about targeted efforts to persuade fisheries stakeholders to take coercive measures through the new ABNJ treaty to implement SDG–14 effectively.

To construct a sustainable mechanism of global fisheries governance, China shall first develop a coherent fisheries governance at the national level. This will help China develop sustainable fisheries governance mechanisms at the regional level (through RFMOs) and gain global maritime power status (as shown in Fig. 1 and Table 4) [82]. There shall be the establishment of a more coordinated relationship between China with most of the maritime States based on impartiality and equitability. Based on the strategic concept of ‘global maritime power’ within the parameters set by SDG – 14, China shall also consider formulating new and precise regulations in marine scientific research, environmental protection, technology development and conservation of fisheries. Furthermore, China shall focus on the long-term planning of the ocean development with new regional initiatives under the BRI and the particularity of a ‘maritime community with a shared future’. On these bases, it is suggested that the future of sustainable ocean development in China is about improving the policy system, strengthening marine environmental and habitat monitoring, and advancing international cooperation for ocean sustainability.

## 5. International Policy implications and future research direction

The outward expansion of China with new initiatives of BRI and Shared Future can result in a global shift in fisheries governance. In order to achieve the objectives of SDG–14 specifically related to fisheries, China shall reform its national fisheries policy and take international and regional dimensions for sustainability in fisheries. The existing global law and policy for fisheries governance shall be taken into consideration by China in which non-governmental organisations, policymakers and academia can play a critical role. In

**Table 4**  
Potential role of China in global fisheries governance.

Targets of SDG – 14	China’s Action	Further Required Action
14.4 Effectively regulate harvesting and end overfishing, IUU fishing and destructive fishing practices and implement science-based management plans in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.	14th Five-Year Plan (2021–2025), which reiterates the ‘eco-civilisation’ policy prioritising sustainable development and opinions on Promoting the High-quality Development of Pelagic Fisheries during the 14th Five-Year Plan.	A more stringent policy is required to regulate fisheries and eliminate IUU fishing effectively.
14.6 prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to IUU fishing. Participating in WTO agreements over fisheries share.	Adoption of new fisheries law at national and provincial level and already a significant member of WTO negotiations.	Further deliberation on subject matter through RFMOs.
14.7 Increase the economic benefits to small island developing and least developed States from the sustainable use of fisheries through sustainable management of fisheries, 14.a Increase scientific knowledge, develop research capacity and transfer marine technology to enhance the contribution of fisheries 14.b Provide access for small-scale artisanal fishers to marine resources and markets.	China is assisting several States in African and South American Regions for such purposes under its new plans.	RFMOs can be utilised, and China can lead such arrangements by convincing other influential states.
14.c Enhance the conservation and sustainable use of fisheries by implementing international law as reflected in the UNCLOS.	China is already trying to implement UNCLOS effectively.	More stringent efforts are required especially through new negotiations under ABNJ.



**Fig. 1.** Overlapping global, regional and national ocean governance and potential role of China/the overlapping nature of global fisheries governance with RFMOs and China's national mechanism.

light of the discussion, future research shall take an economic and political perspective of China's BRI and Shared Future in global fisheries governance.

## 6. Conclusion

Despite China's relatively good governance and effective management in every aspect of natural resources, the existing literature lacks a broad vision of Chinese practices. This research article provides a comprehensive view of China's national mechanism of fisheries governance. It particularly portrays that China is trying to address the gaps in the sustainable utilisation of marine resources. The strong emphasis on the systematic discussion of China's BRI from sustainable fisheries governance is based on regional policy development and suggestions on updating existing RFMOs. This research article also provides practical suggestions regarding China's role in effectively implementing UNCLOS globally, regionally and nationally to achieve SDG – 14.

### Author contribution statement

All authors listed have significantly contributed to the development and the writing of this article.

### Data availability statement

No data was used for the research described in the article.

### Additional information

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### Declaration of interest's statement

The authors declare no conflict of interest.

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