



International advocacy and China's distant water fisheries policies

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ABSTRACT

This article examines the impact of international advocacy on China's Distant Water Fisheries (DWF) policies. Content analysis demonstrates that both international advocacy documents and China's official responses have focused on the politics and transboundary governance of DWF, with China stressing agrofood production and international advocates emphasizing DWF's environmental consequences. Neither party has placed much emphasis on structural complexity in China's DWF policymaking. Even so, the congruence of interests in politics and transboundary governance underscores the importance of international advocacy in influencing perception changes that necessarily precede policy change in China's DWF governance.

1. Introduction

Environmental non-governmental organizations (ENGOS), the media, and the scientific community attempt to influence policymaking on the conservation and sustainable use of marine resources. This coalescence of advocacy has driven policy change globally towards marine sustainability in international negotiation processes over Marine Protected Areas (MPAs) [1], Regional Fisheries Management Organizations (RFMOs) [2,3], Biodiversity Beyond National Jurisdiction (BBNJ) [4], and WTO disciplines on fisheries subsidies [5,6]. ENGOS and the transnational advocacy groups they ally with also shape changes in public policy and marine industries at regional and local levels [7]. Approaches include providing training and information, public pressuring, socializing, and lobbying, as well as confrontation [8–10]. For instance, the Sea Shepherd Conservation Society and Greenpeace deploy vessels to the frontline to directly confront whaling and wider illegal, unreported, and unregulated (IUU) fishing activities [11]. Their strategy of straightforward advocacy, together with sensational media exposure and technical support from epistemic communities, is woven into a global campaign that urges stakeholders to alter their attitude towards unsustainable fishing.

International advocacy contributes to better marine governance in democracies by fostering interactions between policymakers and the public via transnational networks [12]. Comparatively, it usually employs more radical strategies (i.e., confronting and shaming) in countries where transnational civil society is underdeveloped and governments are 'less likely to be held accountable by domestic populations' or lack 'the institutional foundation for good environmental governance' [13],

p.354]. International advocacy, sometimes with attention-grabbing tactics, functions critically in the protection of marine areas beyond national jurisdiction (ABNJ), where the legal status of marine resources is uncertain and globally accepted rules on marine conservation are lacking [14].

China's industrial impact on the global marine environment has received increasing scrutiny from international ENGOS, media and academia for its sheer size, controversial practices, and non-transparent governance [15–17]. In 2019, international advocacy effectively prevented the construction of a Chinese-funded coal plant in Lamu, Kenya, which might have threatened the fragile coastal ecosystem and produced other adverse socioecological consequences [18–22]. In this case, ENGOS, the media and researchers created a transnational, and multi-platform alliance, disseminating scientific findings, launching online and street protests, lodging a lawsuit against the Kenyan government, and eventually forcing the Chinese funder to abandon this investment. It also led to a major policy change: Beijing halted overseas coal-fired power projects [23]. This success shows that China does react to external environmental concerns around its overseas projects, when such advocacy is properly channeled, combining the strengths of political naming, financial pressuring, and dialogue with the right stakeholders.

In the fisheries sector, international advocacy on the environmental, social and security consequences of Chinese DWF have grown rapidly during the past decade, in line with the exponential expansion of the industry's fleet size and catch capacity [17,24–35]. Many believe China be held responsible for the depleting global fish stocks due to its IUU fishing activities both on high seas and in national waters [30]. In

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addition to IUU fishing, Chinese fishers are accused of benefitting unfairly from state subsidies [31,35], provoking fishing conflicts in disputed waters [32], threatening marine ecosystems [28], violating human rights [33], destroying artisanal fishers' livelihoods, and threatening the food security of coastal societies, particularly in West Africa [34,47,48]. Media reports, civil society protests, and academic studies have followed these developments closely, along with political reactions from other industry players that view China as a rising geopolitical and geoeconomic threat to ocean governance [17,36,37,43,46]. Worries about the negative impacts caused by China's fishing activities have become increasingly pronounced since 2017, when Chinese DWF fleets were repeatedly seen near MPAs off the coasts of Ecuador, Peru, Chile, and Argentina, as well as in the northern Indian Ocean [34,41–45].

From a policy perspective, the aim of these international advocates is to “inform appropriate and effective responses by fisheries decision-makers in China and globally” [49], p.4]. It is evident that such a transnational DWF advocacy network has emerged. On high seas and in national waters, transnational NGOs initiate monitoring and protest, produce new knowledge of Chinese DWF activities, and pressure (or attract) more powerful actors to engage. Supported by a broadened global alliance of media and scientists, international advocates call for a substantial remodeling of China's domestic policies on developing DWF and on constraining IUU fishing, as well as changes in Chinese policy-makers' perceptions of the role of DWF in food security and ocean protection [51]. But do they have an impact?

They might. For its part, Beijing has introduced revisions in its DWF-related laws and unveiled new policy tools, including enhanced monitoring systems, fishing moratoriums, observer dispatch, fleet capping, and criminalization [38–40]. The end of China's 13th Five-Year Plan (2016–2020) witnessed a stark turn in its DWF policymaking and reporting. Its policy papers begin to engage with international discourses and its distant water fishing catch was reported to have decreased by 3% year-on-year, the first decline after decades of rapid growth [50]. These changes might not herald a more substantial policy revamp or tightened implementation, but it is still of greater policy significance to evaluate the extent to which they can be viewed as an acknowledgment of international demands for change. Understanding how China's recent policy change is formulated and what the gap is between advocates' priorities and China's policy priorities can be the first step for international advocacy to reflect on strategies and work more effectively on China's DWF issues.

This article furthers preliminary efforts into understanding international influence on China's fisheries policies [39,52,53] by analyzing the content of critical advocacy against China's DWF industry and IUU fishing in the last decade, together with China's official DWF policy updates during the high tide of scrutiny. It assesses the extent of congruence between external actor formulations vis-à-vis China's framings of fisheries development, as well as by the extent of congruence of specific policy outcomes with key international demands. Congruence means that both parties have addressed the issues in similar manners that can be traced in policy change; non-congruence means that there remains a divergence of discourse that prevents external norms from being internalized in policy. It follows a body of literature that explores the role of transnational activism as pressure groups in changing states' policies and forging international cooperation, especially in the arena of transnational environmental politics [54–61].

2. Data and methods

Over the last decade, China's DWF activities have become an independent theme for academic research and media reports, separated from previous studies that mostly covered China's domestic fishing issues. This study provides a starting point for appraising this epistemic trend and its policy implications. This study first assessed a wide range of non-Chinese documents on Chinese DWF and their global impact published

between 2005 and 2021. It selected 20 journals indexed in the science citation index (SCI), science citation index-expanded (SCIE), and social science citation index (SSCI) that publish quality research on developments in the marine and maritime sectors. The keywords for search in the title, keywords or abstracts include “distant water fisheries” or “fishing industry” or “fishing fleets” or “fisheries subsidies” or “IUU”, in addition to “China's” or “Chinese” as prefixes in the query. Papers on China's fishing activities in Africa published in area studies journals are also included. Similarly, reports published by organizations active on China's environmental and fisheries issues in recent years such as Greenpeace, Environmental Justice Foundation, and the Stimson Center, and by active media such as SeafoodSource.com were selected. Most documents in Chinese were scrapped from the website of China's Ministry of Agriculture and Rural Affairs (MARA) and gov.cn—China's central policy outlet with keywords such as “yuanyang yuye”(DWF 远洋渔业), “gonghai”(High Sea 公海), “yuchuan guanli”(Vessel Management 渔船管理), or “lüyue”(Compliance 履约). After filtering out repeated stories, 246 unique contributions were identified: 50 academic papers and 45 reports from media and international NGOs are on China's DWF industry; another 49 media reports emphasize Chinese DWF in Africa; and 44 journal articles and books discuss developments and reforms in China's general fisheries sector. To compare, 22 policy documents from the Chinese government since 2017 were acquired and two were selected for intensive analysis. Table 1 gives examples of the selected documents in five categories.

This article developed a two-step comparative approach to examine congruences and divergences in perceiving, advocating, and transforming the DWF industry (Fig. 1). First, it compares strategic framings and policy venue targets of international advocacy documents with those of China's official documents. The extent to which congruence in understanding DWF's industrial and institutional complexities can be found among the documents of both parties is an initial indicator of the soundness and effectiveness of advocacy, as well as of policy change outcome [70].

The comparison of strategic framings yields insights into how both parties interpret the industry, that is, whether DWF is regarded as an issue of international politics including global fishing regime participation, maritime security, and human security; or as an issue of agrofood production that matters to the global seafood supply and China's domestic food supply; or as a pressing environmental issue that is closely related to biodiversity loss, climate change and ocean degradation. The comparison follows Steinberg's [58] framework, which highlights the role of interaction between the international sphere of science, finance and ideas and the domestic sphere of political resources and policy culture in influencing environmental policy change in China. Scientific information and sensational stories are commonly harnessed by international advocacy to create issues, set agendas, strengthen arguments, and gather public support, thereby restyling industrial practice into political and environmental controversy. China's policy culture, however, has traditionally regarded fishing as an agrofood response to domestic food security needs [64]. Mismatches in understanding the nature of fishing and misinterpretation of fisheries capacity could thus have had a negative impact on building a productive dialogue and delivering key messages for intended policy change.

The content analysis also compares policy venue targets, examining the extent to which the documents have targeted policymaking channels, departments, and actors that are empowered to make the advocated changes. This approach attends to the varied interests within different institutional venues, compartmentalizing trends, and other impediments to new environmental policy integration [62,67]. Since fisheries are environmentally and socially complex, their governance must go beyond the administration of a single policy venue. Policy advocacy should engage with this institutional complexity by promoting horizontal cooperation among parallel policy departments, vertical coordination between central and local channels, and transboundary harmonization between a country's domestic and foreign policy

Table 1
Document Categories, with Examples.

| Category “Code” | Number of Documents | Illustrative Title |
|--|------------------------|--|
| Journal Papers on Chinese DWF “DWF_CN_JP” | 50 | Pala, Christopher, “Detective work uncovers under-reported overfishing: Excessive catches by Chinese vessels threaten livelihoods and ecosystems in West Africa”, <i>Nature</i> , 2013. Pauly et al., “China’s distant-water fisheries in the 21st century”, <i>Fish and Fisheries</i> , 2014. Okafor-Yarwood, Ifesinachi, “Illegal, unreported and unregulated fishing, and the complexities of the sustainable development goals (SDGs) for countries in the Gulf of Guinea”, <i>Marine Policy</i> , 2019. |
| International Reports on IUU fishing related to China “IUU_INT_RP” | 45 | Greenpeace East Asia & Africa, <i>Africa’s Fisheries’ Paradise at a Crossroads: Investigating Chinese Companies’ Illegal Fishing Practices in West Africa</i> , 2015. EJF, <i>China’s Hidden Fleet in West Africa</i> , 2018. ODI, <i>China’s distant-water fishing fleet: Scale, impact and governance</i> , 2020. |
| Media Reports on Chinese Fisheries in Africa “CN_AF_MD” | 49 | “China’s Appetite Pushes Fisheries to the Brink”, <i>New York Times</i> , April 30, 2017. “Mauritanian firm seeks Chinese investment despite Hong Dong investigation”, <i>SeafoodSource.com</i> , April 29, 2020. “Stolen At Sea: An Investigation into Illegal Chinese Transshipment Activities in Ghana and Nigeria”, <i>Modernghana.com</i> , November 10, 2020. |
| Journal Papers and Books on Chinese Fisheries Governance “Fishery_CN_JP_BK” | 44 | Ferraro, Gianluca, <i>International Regimes in China: Domestic Implementation of the International Fisheries Agreements</i> , Routledge, 2017. Zhang, Xiong & Amanda C.J. Vincent, “China’s policies on bottom trawl fisheries over seven decades (1949–2018)”, <i>Marine Policy</i> , 2020. Su et al., “Adjustment trend of China’s marine fishery policy since 2011”, <i>Marine Policy</i> , 2021. |
| China Government Documents on DWF or IUU “CN_GOV” | 22 | <i>The 13th Five-Year National DWF Development Plan</i> (“十三五”全国远洋渔业发展规划), 2017. <i>Distant Water Fisheries Regulation</i> (远洋渔业管理规定), 2020. <i>White Paper on the Compliance of China’s Distant Water Fisheries</i> (中国远洋渔业履约白皮书), 2020. |

priorities [65,66]. To be effective, international advocacy must engage in cross-sectoral thinking on DWF issues and ferret out the right policy venue(s) to target.

China’s policy revision on DWF can be deconstructed as well. Do revisions reflect the interest and opinion of single policy department, for instance, the Ministry of Agriculture and Rural Affairs (which might be more disposed to the role of fisheries in China’s agrofood system)? Or, are they a joint result of horizontal interactions among policy

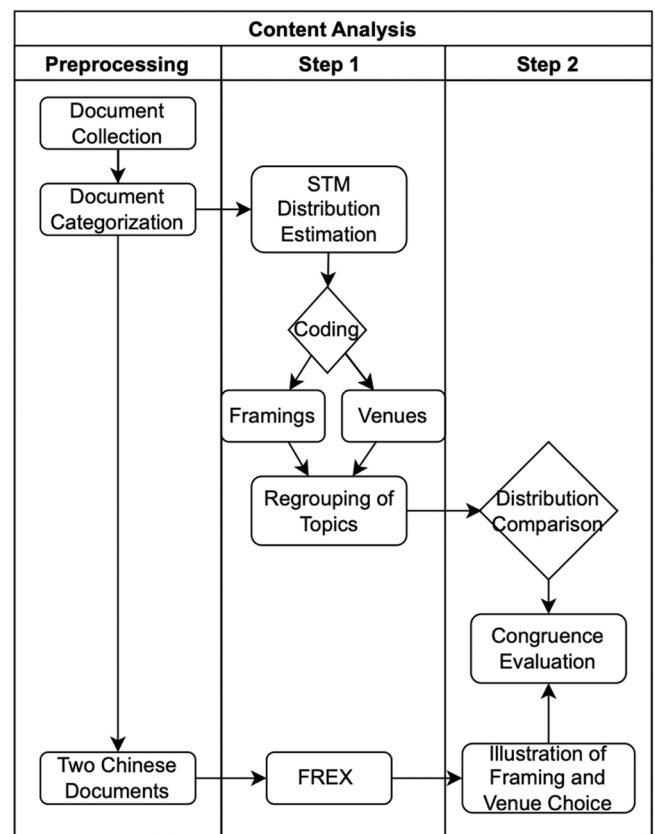


Fig. 1. Data Processing Flowchart.

departments including the Ministry of Natural Resources (which incorporates the interests of the former State Oceanic Administration [63]), the Ministry of Ecology and Environment, the Ministry of Commerce (in charge of WTO negotiations), and/or the National Forestry and Grassland Administration (in charge of wildlife management)? Vertically, since a substantial number of local governments and companies participate in China’s DWF industry [80], any sound advocacy should seek to guide policy design, implementation, and supervision at all levels of government. Furthermore, as DWF is an inherently transboundary industry in which domestic and foreign entities and individuals collaborate, an effective policy should address transboundary governance issues, calling for both enhanced measures within territorial boundaries and extraterritorial solutions for overseas enactment.

Second, a Structural Topic Model (STM) was employed to estimate the distribution of words relating to strategic framings (topics and themes) in the selected documents [68]. Preliminary non-focused results were then coded and regrouped into three major framings: “politics”, “agrofood”, and “environment”. Aggregate proportions of the three framings in each document are compared to determine whether a document is non-framed, single-framed, or multi-framed (with a threshold of 10% for each framing). The analysis of policy venue choices proceeded in a comparable way, with relevant topics coded and regrouped into three major dimensions: “horizontal”, “vertical”, and “transboundary” venues (with a threshold of 2% for each dimension). Further, a FREX analysis of word frequencies was conducted on two recent Chinese policy papers on DWF. A FREX analysis balances frequency and exclusivity in the result and can highlight the substantial corpus without the interference of frequently repeated non-meaningful words [69]. This analysis illustrates how the Chinese government is framing and developing its DWF policies and the extent to which these policies are consistent with the interests embedded in international advocacy campaigns.

3. Analysis of results

Fig. 2 traces internationally published NGO and media reports, legal documents, technical analyses, and scientific outputs, as well as corresponding Chinese DWF policy documents, in the period between 2005 and 2021. This bibliographic trace shows an initial surge of international interest from 2017 to 2019 in Chinese DWF, especially near West Africa. This surge was concurrent with the promotion of the blue economy at two Forums on China–Africa Cooperation (FOCAC) in 2015 and 2018 that further broadened the industrial scope from transoceanic fishery to Chinese aquaculture, port, and fish processing investments in Africa. Following the Galapagos incident in 2017, Chinese DWF in the Pacific began to attract considerable attention from the international community. In the same year, Chinese authorities realized how politically sensitive DWF activities could be and expressed for the first time their stance on combating IUU fishing and supporting sustainable fishing via new administrative measures. Although China’s DWF policies have been undergoing steady internal adjustments [39], the year of 2017 could have signaled, as the bibliographic trace suggests, a new era where China’s overseas fishing activities captured the attention of a broader global civil society.

In 2020, however, global fisheries and environmentalists were once again disturbed by the omnipresence of China’s fishing vessels from West Africa to the East Pacific [71], despite reportedly tightened domestic regulation over the previous three years. Off the Galapagos islands, the Ecuadorians were astonished by the return of a Chinese fishing fleet, whose hooks were targeting *Dosidicus gigas*, a Humboldt squid traditionally fished by local vessels too. Ecuadorians had no viable countermeasures but simply kept close surveillance and assembled detailed reports on the Chinese vessels, igniting another round of protest

in the country and feeding explosive information and visual evidence to the global media [72,73]. In the Gulf of Guinea, a transoceanic Chinese fleet, including trawlers that threatened the artisanal fishing communities, was denounced by a succession of investigative reports with compelling technical specifications released by influential international marine NGOs and think tanks [75–78]. This global campaign against Chinese DWF continued in 2021 even though the global seafood industry, including China’s, was affected by the Covid-19 pandemic [79]. Besides criticizing its threat to the marine environment and small-scale fishers’ livelihoods, more recent reports connect Chinese DWF with maritime security, imposing new geopolitical pressure on China’s control of its fishing fleet [43,45].

It is not coincidental that, in 2020 and 2021, the Chinese government expedited revising its DWF policies. This was done by instituting new regulations and promulgating measures that were tailored to accommodate international laws. A record-breaking 10 (in 2020) and 7 (in 2021) new measures specifically on the DWF industry were registered in Fig. 2. Although many of these measures reiterate old rules, it is worth noting that the general trajectory is sketched in a way that seems to be responsive to an emerging international consensus on DWF governance. This can be seen in two key documents—the 2020 *Distant Water Fisheries Regulation*, and the 2020 *White Paper on the Compliance of China’s Distant Water Fisheries*—as well as in stand-alone DWF regulatory measures like the assignment of observers aboard DWF vessels in April 2021, self-imposed moratoriums on squid fishing in 2020 and 2021, and a November 2021 cap on the number of overseas squid fishing fleets to be licensed.

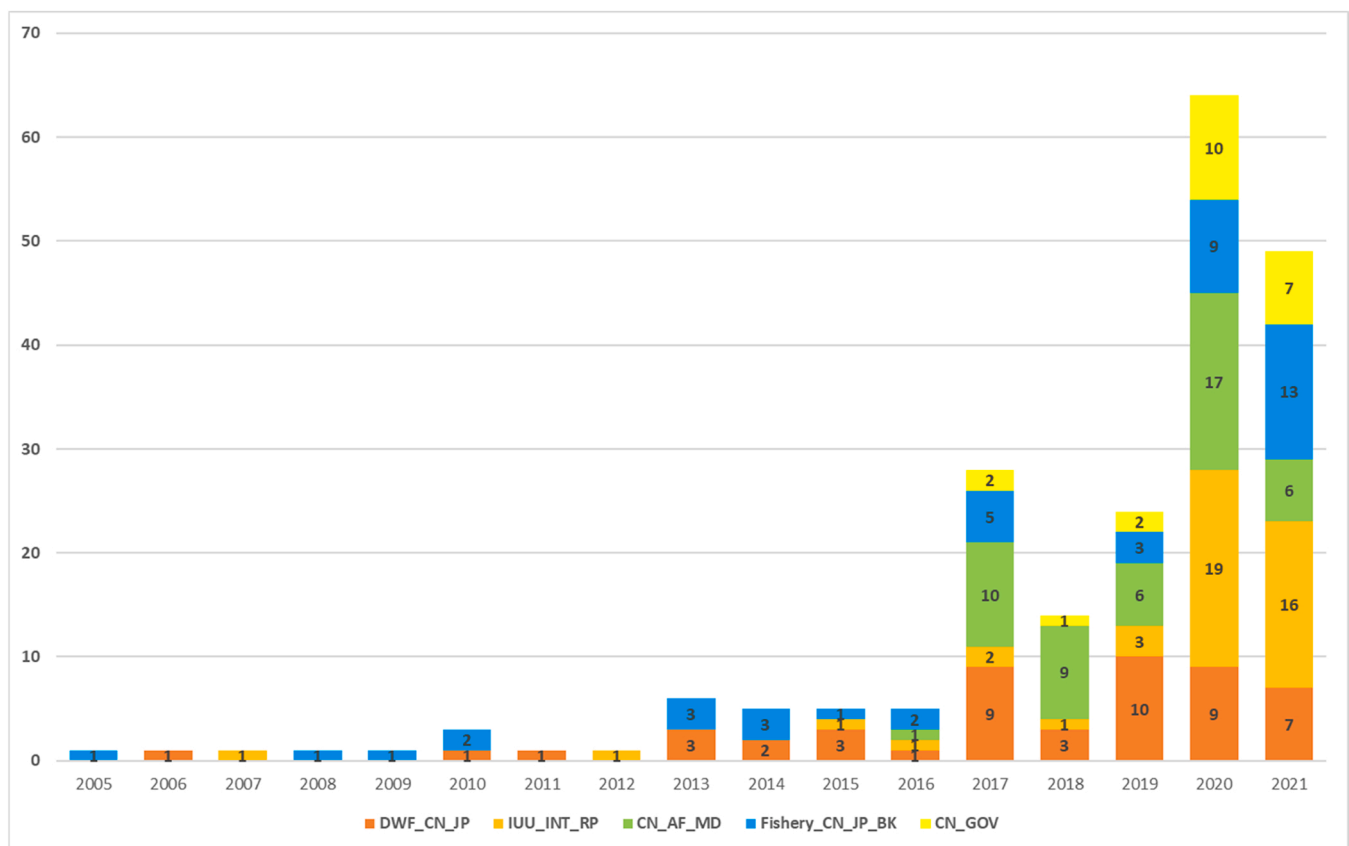


Fig. 2. Number of Internationally Published Documents (in English) and China’s Official Documents (in Chinese) on Chinese DWF (2005–2021). Legend: DWF_CN_JP (Journal papers on Chinese DWF); IUU_INT_RP (International reports on IUU fishing related to China); CN_AF_MD (Media reports on Chinese fisheries in Africa); Fishery_CN_JP_BK (Journal papers and books on Chinese fisheries governance); CN_GOV (China government documents on DWF or IUU).

3.1. Distribution of strategic framings

In the STM analysis, topics selected from internationally published journal papers, books, reports, and the concurrent Chinese official measures are coded on three paradigmatic framings of the DWF industry: “politics”, “agrofood”, and “environment”. The quality of being political is measured by the proportion of coded topics that see the industry from geopolitical and socioeconomic perspectives. Typical codes found in this paradigm are “threat”, “rivalry”, “great power”, “naval”, “strategy”, “national security”, “treaty”, “local communities” and their variations. The quality of relating to agrofood is measured by the proportion of coded topics that see fishing as important aquatic food production. Corresponding codes found in this paradigm are “food production”, “food security”, “market”, “supply chain”, “nutrition”, “aquaculture”, “aquatic food”, and their variations.¹ The quality of being environmental is measured by the proportion of coded topics that see the industry from the perspective of marine conservation. Codes used here are more scientific: “environment”, “conservation”, “biodiversity”, “bottom trawling”, “fish population”, “pollution”, and other relevant terms.

The topic selection, coding, and subsequent regrouping (Fig. 3) yield a finding that 31 of the 50 journal papers on Chinese DWF are more politically inclined, with 11 touching upon the environmental impact of DWF activities. A similar proportion of political focus can be found among reports on Chinese IUU fishing. Media reports on China’s fishing activities in Africa and China’s official measures have given approximately equal attention to the political, agrofood and environmental issues in China’s DWF industry. Many studies on China’s fisheries conceive it as an agrofood subject, though 14 of 44 expressed concerns about the environmental consequences of overfishing, given China’s notorious history of depleting its domestic fish resources [39].

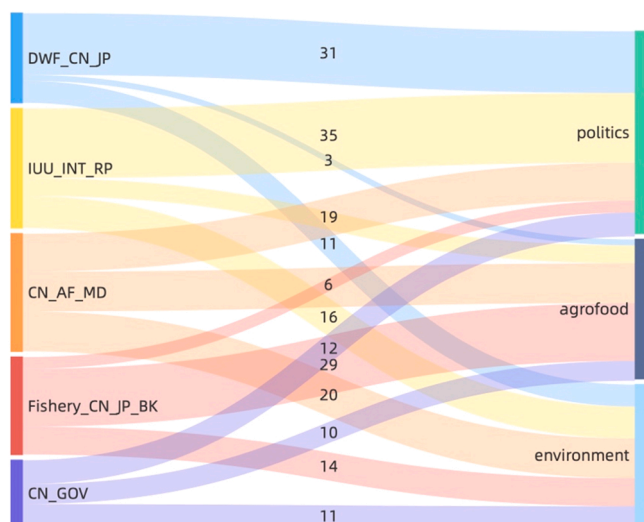


Fig. 3. The Distribution of Political, Agrofood and Environmental Framings in Internationally Published Documents, and China’s Official Documents on Chinese DWF.

¹ Aquatic food production, catering to the domestic consumption and global export market, is a commonly used framing strategy by the Chinese government and recognized by international observers. In fact, economic drivers play a pivotal role in China’s DWF development, enabling not only the production of agrofood but also propelling GDP growth, creating employment opportunities, and accelerating coastal development. The framing of “agrofood” is but an instance of the economic factors at play, which diverge from political and environmental considerations.

The paradigmatic framings are not exclusive, as the fishing industry writ large is a complex, multidisciplinary endeavor. Certain topics could be found repeatedly in multiple documents—for example, “overfishing”, “huge demand”, “fishmeal”, “compliance”, etc.—suggesting the intersection of political, agrofood, and environmental interests in this issue. Overall, the result shows a concentration of framing on Chinese DWF towards specific political outcomes. Even China’s official measures have devoted more than one-third of their attention (12 out of 33 measure) to respond to international advocacy on the politics of expansion and possible security ramifications of its fishing fleet.

3.2. Distribution of policy venue targets

Policy-relevant topics selected from internationally published journal papers, books, reports, and the concurrent official Chinese measures, were coded on three dimensions of possible policy venue choices: “horizontal”, “vertical”, or “transboundary” (Fig. 4). A horizontal policy venue choice means either international advocacy or China’s policymakers promoted a cross-sectoral, cross-ministerial coordination that involves other sectoral interests and policy influencers besides the dominant MARA. Horizontal coordination of policies and shifts in policy venue allow space for non-agrofood thinking (environment protection, wildlife protection, and maritime security) in China’s DWF culture and governance. A vertical policy venue choice is associated with the central–local dilemma in DWF governance. Advocacy would be more effective if advocates were more cognizant of the central authorities’ limited implementation and monitoring capacity; instead of pressuring those sitting in Beijing, sought venues that enabled more effective engagement with China’s provincial and local actors and their respective DWF plans for economic purposes, including GDP growth, employment, and coastal development. A transboundary policy venue means either international advocacy or China’s policymakers promoted a bi-directional perspective that aims to enhance both overseas policy implementation and home-based DWF governance measures. As shown in Fig. 4, the bulk of both international advocacy and China government documents address DWF policy from a transboundary policy dimension. This suggests that they prioritize venues and mechanisms where China’s domestic policies can be better translated into overseas implementation and seen by international actors. For instance, transboundary policy-making can be achieved via bilateral and multilateral negotiations, and transboundary policy implementation can be achieved via specific measures such as better vessel location reporting, onboard observation,

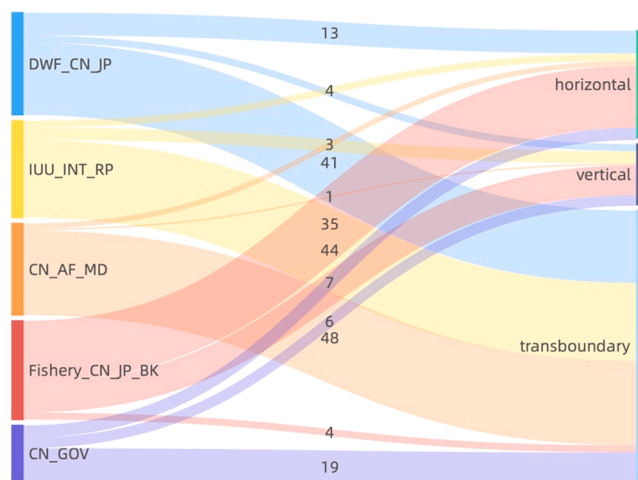


Fig. 4. Distribution of Dimensions of Policy Venue Choices among Internationally Published Documents and Chinese Official Documents on Chinese DWF.

or China’s potential participation in the Port State Measures Agreement.

Fewer publications discuss horizontal and vertical policy coordination in China’s DWF governance, though those on China’s general fisheries policies occasionally touch upon DWF: out of 49 documents, 4 involve transboundary fisheries governance, 35 are informed by horizontal venue choice thinking, and 17 engage in vertical venue choice thinking. 13 out of 50 papers on Chinese DWF and their governance touch upon the fact of parallel ministries in the system. This can be regarded as preliminary horizontal thinking, though calls for better coordination at this level are rare. In other words, the domestic origin of China’s DWF governance, i.e., competition of interests and cooperation within the bureaucratic system, and the domestic factors that could shape relevant policies, i.e., local actors who might have more bargaining power than advocates realize, remain understated in either international advocacy against Chinese DWF or China’s own policymaking that has been constantly dominated by the agrofood agenda of MARA.

3.3. Congruence and divergence in framing and policy venue choice

In this section, a simple geometric visualization is used to synthesize the overt congruence in political framing and transboundary policy venue choice and divergence among other topics. Fig. 5 shows a policy space in a polar coordinate system where regrouped results from each document category are transformed into surfaces across six topic quadrants (“politics”, “agrofood”, “environment”, “horizontal”, “vertical”, “transboundary”). The degrees of congruence and divergence can be graphically illustrated by the areas these surfaces overlap in each quadrant. Four surfaces—China’s Official Documents on DWF or IUU, International Reports on IUU fishing related to China, Journal Papers on Chinese DWF, and Media reports on Chinese fisheries in Africa—overlap in similar convex curvature in the “politics” and “transboundary” quadrants. In addition, while Chinese documents concentrate towards agrofood production, international advocacy documents are relatively more environmentally overlapped.

Table 2 further demonstrates a qualitative measurement of diverged relevance in topic distribution in DWF-related policy quadrants. Between one document category and one quadrant, four positive degrees of relevance are assigned (++++, +++, ++, +) based on the size of overlapped areas. The more “+”s registered in each quadrant, the more congruent these documents of different origins are in terms of focused topics in policy advocacy and policymaking. The distribution of many single “+”s tells what is unbalanced in the current way of advocacy in

terms of a comprehensive consideration of the industrial and institutional complexities in Chinese DWF, despite stronger policy congruence in the quadrants of politics and transboundary governance.

The paradigmatic structure of strategic framings and dimensions of policy venue choice are interrelated. A disproportionate focus on one framing, say politics, hinders better discussion of other paradigms and, therefore, inhibits a shift in focus in policymaking from being largely transboundary to the more crucial horizontal and vertical coordination of governance. Nevertheless, the finding of an overwhelming focus on transboundary policies reinforces the impression that the Chinese fleet plays political and agrofood roles that might be satiating China’s food demand at the expense of food crisis and biodiversity loss in the areas where the Chinese fleet has fished. In plain terms, ongoing international advocacy has employed a naming and shaming strategy to target the political threat of Chinese DWF and its harmful impact on the oceans. In response, China’s DWF policy revision, especially since 2017, tacitly steers policy change towards compliance in the global fishing regime but avoids answering global food security concerns directly.

3.4. Analysis of China’s 2020 DWF policy

This section presents the results of a FREX analysis of word frequencies in two recent Chinese policy papers on DWF. A FREX analysis helps to reveal meaningful words that are used frequently in selected texts, which is particularly useful for tracing the quantity and quality of jargon that may appear foreign and exogeneous. Two DWF policy papers, both published in 2020, are analyzed here: the *Distant Water Fisheries Regulation* (hereafter “2020 Regulation”) and the *White Paper on the Compliance of China’s Distant Water Fisheries* (hereafter “2020 White Paper”).

The two policy papers were released during the high tide of international scrutiny on Chinese DWF in 2020 (Fig. 2). The 2020 Regulation is not a complete overhaul of China’s DWF policies, but rather a technical amendment, extension, and reinforcement of previous insufficiencies and new industrial realities. A large corpus of the regulation is dedicated to upgrading monitoring techniques and implementing compulsory reporting of vessel location and harvest data, compulsory use of standardized fishing logs, and stricter qualification of DWF enterprises and catch certification. The amendment also introduces tougher penalties for IUU fishing and intentionally disabling monitoring systems, especially if caught by international actors. In addition to financial penalties and possible incarceration, those found guilty will be banned from future participation in the industry.

Despite the promising changes, the topics of the 2020 Regulation remain highly technical in terms of maritime transport (i.e., “license”, “crew”, “fishing vessels”), fishing management (i.e., “fishing logs”, “inspection certificate”, “science”), and administrative control (i.e., “authorities”, “qualification”, “monitoring”) (Fig. 6), suggesting that it is prepared more for an internal audience—local fishery officials, industrial leaders, vessel captains, etc. In addition, MARA and “agriculture” come as a third-most-frequent topic only after the generic “DWF” and “fisheries”, suggesting a continued agrofood agenda in this dimension of DWF policymaking, which stays on DWF’s role in China’s food security and on how to technically perform compliance with international fishing rules to avoid scandal. The 2020 regulation thus reads more like a departmental manual than a genuine, profound change towards a more sustainable, ocean-friendly policy framework.

Different from the 2020 Regulation, the 2020 White Paper, the first of its kind for China, gives more information about China’s political stance on DWF. A white paper by nature is a sovereign response to issues raised by the international community. It offers a lens through which international and Chinese legal frameworks on DWF can be compared. This white paper emphasizes China’s Flag State duties, such as licensing, input and output control, and better data collection and reporting. Stricter regulation to combat IUU fishing is envisioned, and China’s participation in RFMOs and performance evaluation results by Indian

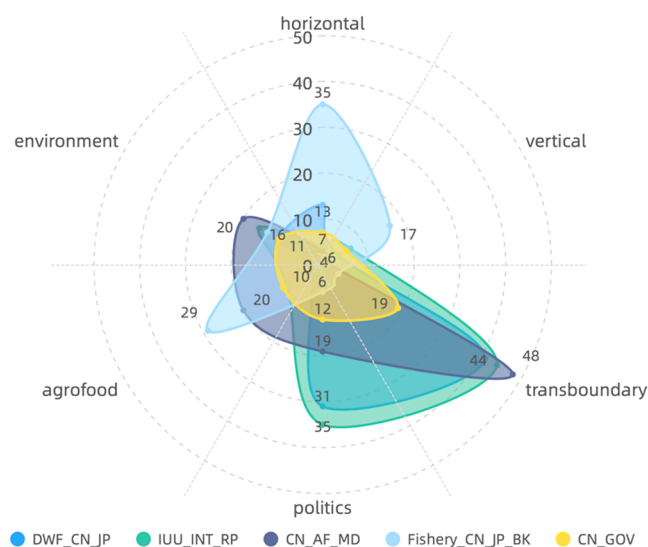


Fig. 5. Comparison of Topic Distributions of Internationally Published Documents and Chinese Official Documents on Chinese DWF on a Combined Radar Space.

Table 2
Qualitative Congruence Between International Advocacy Documents and China’s Official Documents on Chinese DWF.

| Category | Quadrant: Strategic Framings | | | Quadrant: Policy Venue Choices | | |
|------------------|------------------------------|----------|-------------|--------------------------------|----------|---------------|
| | Politics | Agrofood | Environment | Horizontal | Vertical | Transboundary |
| DWF_CN_JP | ++++ | + | ++ | +++ | + | ++++ |
| IUU_INT_RP | ++++ | + | +++ | + | + | ++++ |
| CN_AF_MD | +++ | +++ | +++ | + | + | ++++ |
| Fishery_CN_JP_BK | + | ++++ | +++ | ++++ | +++ | + |
| CN_GOV | ++ | ++ | + | ++ | + | +++ |

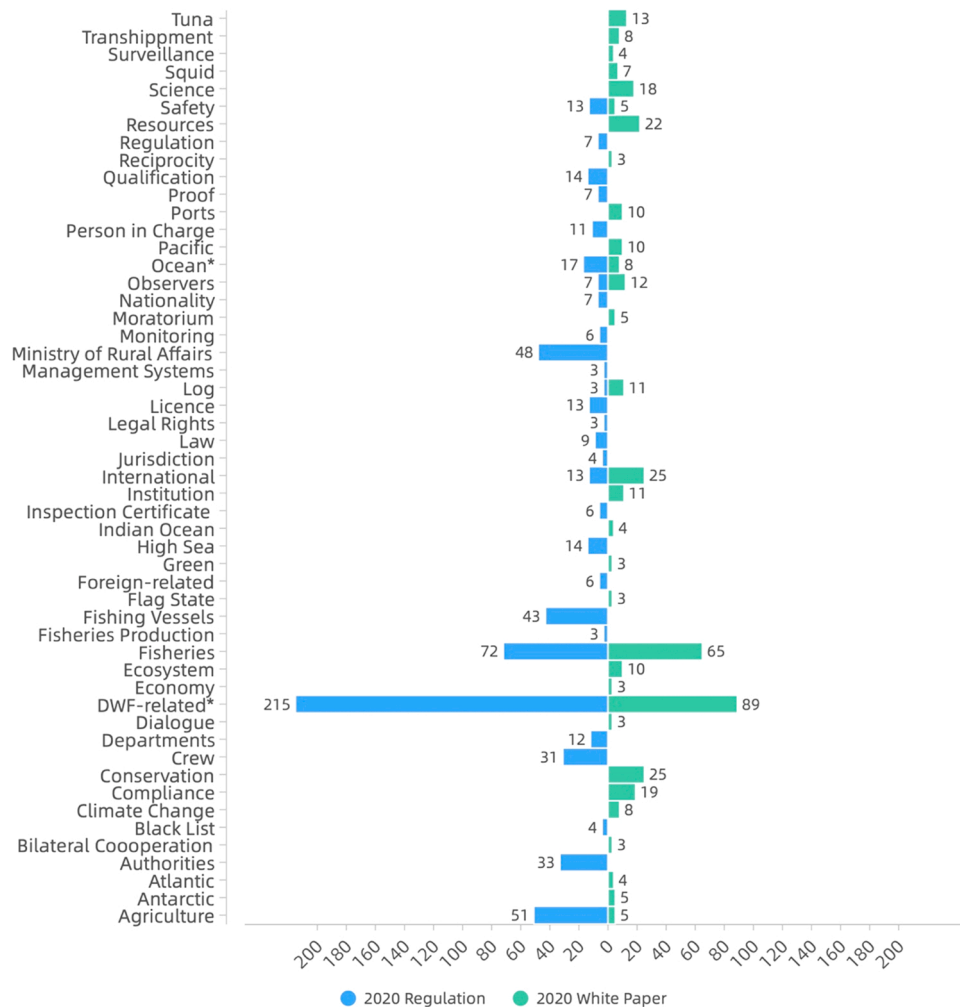


Fig. 6. Comparison of topic frequencies between the 2020 Regulation and the 2020 White Paper (*joint number of synonyms).²¹

Ocean Tuna Commission (IOTC), International Commission for the Conservation of Atlantic Tunas (ICCAT), and Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) are demonstrated as satisfying international compliance results. Environmentally friendly fishing, ecosystem-based fisheries management, climate change and sustainable use of fisheries are also discussed.

With the two documents, Beijing has announced the establishment of a system of transboundary, transoceanic governance of Chinese DWF vessels that operate in waters of other countries. Both local consent and an endorsement from the Chinese embassy in the fishing country are prerequisites to vessel registration, and fishers must accept the supervision of the Chinese embassy and comply with Chinese, local and international fishing laws. The White Paper claims that China has developed sound legal and administrative systems to ensure that international maritime laws are observed. It aims to strengthen cooperation with developing coastal states, highlighting Chinese fishing enterprises’

contributions to employment, infrastructure development, technology upgrades, and human resource improvement. Such a stance can be interpreted as a response and development solution to the endangered livelihood of the coastal communities near which industrialized Chinese DWF vessels have been often found. FREX analysis (Fig. 6, frequency ≥ 3) confirms a surge of ideas such as “conservation”, “ecosystem”, “climate change” and “green”, the geographical focus of the White Paper—“Pacific”, “Atlantic”, “Indian Ocean”, “Antarctic”—as well as the main fishing controversies it targets: “transshipment”, “tuna”, “squid”, “fishing logs”.

Fig. 6 demonstrates topic overlaps and differences between the two policy papers. Leaving out generic topics such as “DWF” and “fisheries”, both documents show a high degree of technical adjustment to China’s DWF policies, with the 2020 Regulation directing DWF entities to become more agile with international fishing rules and the 2020 White Paper informing the international community that additional technical

and legal measures were already underway. The 2020 Regulation's discussion of national food security seems to target a domestic audience, while the 2020 White Paper answers more directly to international concerns, in a language more receptive to international norms and more consistent with what international advocacy expects to see. The jargonized evidence of these two policy papers reveals what has been discussed in China's DWF policy circle under international influence. Although it is difficult to determine the degree of the impact of international advocacy by simply applying a qualitative content analysis, the analysis here indicates that, at least to some extent, Chinese policymakers are selectively responding to the scientific and legal dimensions of fishing and attempting to make their responses heard internationally. Thus, creating a smoother channel for better communication and dialogue between the Chinese policymakers and international advocates with less politicized language might be one way to continuously drive China's ideational change on DWF; such a change necessarily precedes further concrete policy change.

4. Discussion and further policy relevance

So far, this article has examined the degree of congruence between international advocacy and China's policy responses, particularly in terms of political framing and the need for transboundary DWF governance. Under one common political framing, the Chinese government has failed to rein in its overseas fleet and, regardless of regulations, that fleet should be held responsible for overfishing and maritime. China's response to this line of advocacy has been cautious and defensive, stressing its participation in the global fishing regime, efforts to improve DWF management, and aid to coastal developing nations. An undeniable fact is that China has provided these answers in policy papers released during the high tide of international scrutiny in a language that can be better perceived by international actors, suggesting that perception within China's DWF policy circle has been influenced by topics and themes that are frequently repeated by international advocacy. An exemplar of the said influence can be seen from Greenpeace's work on China's fisheries policies. It has actively called on reforms in China's fisheries management, provided policy recommendations to the Fisheries and Fishery Administration of MARA and suggested on the draft revision of China's Fisheries Law. International advocacy, in this regard, is of high value in driving China's DWF policy change, especially towards a more sustainable fishing industry, as policy change follows perception change, a result of better comprehension of fundamental issues on equity and human-nature relations, which international advocacy, including the scientific community, strives to make better [74].

Following this line of discussion, findings in this article could have further policy relevance:

Communication matters in promoting policy change within a Chinese bureaucratic context. China usually avoids responding directly to the shaming strategy commonly seen in international advocacy, but selectively engages with external actors on issues of shared interest, such as participating and voicing in the global fishing regime. For instance, the 2020 White Paper has been successful in sidestepping allegations pertaining to China's DWF practices. However, it emphasizes the importance of China carrying out due diligence when it comes to

tackling IUU fishing and preserving fishing resources worldwide. Two channels of communication exist. The first is a continuous dialogue with more internationally exposed policymakers, who could have a great deal of influence when bringing their knowledge and commitment from external negotiations back into the inner circle. It could be more pragmatic for international advocates to promote this policy internalization by establishing communication on the environment, biodiversity, and marine protection issues of fisheries. Not only because China imposes stricter domestic fisheries management to protect its vanishing domestic fish resources; environmental communication in other sectors has clearly influenced policymakers in China's authoritarian and non-transparent policy setting. Congruence analysis (Table 2) reveals the environment as an urgent topic that has been relatively underrepresented in China's policy responses. This can be a breakthrough for better policy communication, since China has historically posed itself as a responsible global environmental power [81]. The second channel relies on civil and consumer engagement. International advocacy should engage more with China's domestic ENGOs and public opinions [82], seek better understanding of the market, and shift its focus towards a bottom-up pressuring strategy.

As shown in this article, DWF is a complex industry that involves political, agrofood, and environmental implications as well as varied interests within the policy circle that cooperate and compete with one another. The postponed legislation of a new Fisheries Law in China is a clear example of such complexity. The draft of this new legislation, published in 2019, introduces a DWF qualification system, a port-based vessel reporting and monitoring system, an IUU blacklist, and penalties, which is an accumulative outcome of DWF policy evolution in China. However, obstacles remain in horizontal policy coordination where fishery, maritime, forestry and customs departments all have their respective authority over fish, crew, vessel, and seafood issues, and in vertical acquiescence from local actors who have vested interests in the DWF industry. China's pending ratification of the Port State Measures Agreement faces the same bureaucratic challenge.

Finally, Chinese policymakers are known for their gradualism and eclecticism in internalizing foreign ideas. They keenly observe world developments, draw lessons, and "cobble foreign and domestic policy ideas in modular fashion" [83], p.89]. As such, any progress in China's compliance with international DWF norms should be interpreted in light of the context, timing, and even the targeted audience. Entering 2022, what the 2020 Regulation and 2020 White Paper have stipulated constitute only a small part of China's latest 14th Five-Year Plan on DWF (2021–2025), which promotes high-quality development and an expanded role for DWF in agrofood production including improving mechanization, informatization, and intelligentialization, increasing productivity by controlling scale, noncompliance and safety hazard, as well as optimizing the industry's global distribution and fishing resource survey capacity. Failing to realize this policy context could substantially limit the effectiveness of any future advocacy effort.

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² Top 10 Chinese terms in the 2020 Regulation are: 远洋渔业相关(DWF-related), 农业、农业农村部(Agriculture and Ministry of Rural Affairs combined), 渔业(Fisheries), 渔船(Fishing Vessels), 政府部门(Authorities and Departments combined), 船员(Crew), 海洋相关(Ocean), 公海(High Seas), 资格(Qualification), 安全(Safety), 国际(International), 负责人(Person in Charge). Top 10 Chinese terms in the 2020 White Paper are: 远洋渔业相关(DWF-related), 渔业(Fisheries), 保护(Conservation), 国际(International), 资源(Resources), 履约(Compliance), 科学(Science), 金枪鱼(Tuna), 观察员(Observers), 日志(Log), 制度(Institution), 生态系统(Ecosystem).

Data availability

Data will be made available on request.

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