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Joint development in the South China Sea: Exploring the prospects of oil and gas cooperation between rivals

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ABSTRACT

This article evaluates whether the South China Sea's littoral states can cooperatively manage the region's contested oil and natural gas resources. By examining historical intergovernmental joint development agreements (JDAs), it argues that the prospects for significant hydrocarbon cooperation are slim under current political conditions, as rival states rarely establish such accords. Moreover, creating JDAs is insufficient to prompt actual co-development of shared oil and gas deposits or improvements in states' broader relations. Nonetheless, hydrocarbon agreements do have one important positive impact. They prevent resource-related militarized confrontations, thereby reducing the risk of territorial dispute escalation. This incentive, alone, could prompt the South China Sea's claimant states to negotiate JDAs and third party states to encourage these efforts.

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1. Introduction

Recently, tensions in the South China Sea have escalated. China's construction of artificial islands is one source of friction, inspiring censure from other littoral states, the United States, and the Permanent Court of Arbitration in The Hague, which ruled in July 2016 that China's controversial "nine-dash line" maritime claim lacks merit [1]. However, the region's most severe militarized confrontation in the last three years was provoked by another issue: oil and natural gas exploration. In May 2014, China and Vietnam became locked in a militarized standoff, after China parked an oil rig in waters near the contested Paracel Islands. Both countries deployed naval and coast guard vessels to the area and ships rammed and turned water cannons on one another, sinking a Vietnamese fishing boat [2]. Although the crisis was contained and the oil rig eventually withdrew, ownership of the sea's hydrocarbon resources remains uncertain. Fears are widespread that competition over oil and gas deposits could provoke further militarized incidents, which might escalate into larger conflicts.

However, hydrocarbon competition could also encourage international cooperation. In the aftermath of the rig crisis, Chinese and Vietnamese officials held discussions on joint development of the South China Sea's oil and gas resources [3]. This initiative was consistent with a broader Chinese foreign policy, of shelving territorial disputes in order to proceed with resource exploration and development.[1] Observers have also endorsed hydrocarbon cooperation as a means of exploiting the South China Sea's resources while sovereignty disagreements continue [4–6]. Some commentators suggest that collaborative management of oil and gas resources could encourage cooperation on other contentious issues in the South China Sea dispute, including claimant countries' broader disagreement over political sovereignty (for example, [7]:xvi; [8]:178).

This article evaluates the viability of such proposals by examining historical intergovernmental agreements on oil and gas cooperation. Focusing on joint development agreements (JDAs) between rivals, it finds that the prospects for such accords in the South China Sea are limited; rival states rarely create JDAs. However, on the few occasions that rivals have established cooperative hydrocarbon agreements, the accords have had one significant positive effect. They have deterred further militarized confrontations over oil and gas resources. JDAs would therefore reduce the risk of territorial dispute escalation in the South China Sea by making resource disagreements less conflictual.

Unfortunately, cooperative hydrocarbon agreements between rivals have few other positive effects. The historical analysis finds that oil and gas accords are insufficient to prompt actual joint development of hydrocarbon resources or improvements in rivals' broader relations. Instead, for states to jointly develop oil and

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[1] This policy is outlined in a 2011 White Paper on "China's Peaceful Development," http://www.china-embassy.org/eng/zt/bps/t944141.htm.

gas resources, political reconciliation must precede or accompany hydrocarbon accords. Despite this limitation, the South China Sea's claimant states may find the prospect of deterring future oil and gas-related confrontations sufficiently appealing to pursue cooperative agreements. The article's final section identifies strategies that they and third party states can adopt to facilitate the creation of JDAs.

2. The South China Sea dispute

At present, six countries have issued formal claims to portions of the South China Sea: Brunei, China, Malaysia, the Philippines, Taiwan, and Vietnam.[2] However, the dispute began at least eighty years ago, with Sino–French disagreements over ownership of the Paracel Islands. The territorial contest provoked significant militarized confrontations between China and Vietnam in 1974 and 1988. Yet, it was not until the 1990s that the dispute became a persistent source of tension between many of the region's littoral states. In part, this escalation was due to China's growing level of interest and activity in the South China Sea, as the state attempted to develop its blue water navy and intensified its hunt for hydrocarbon resources, after becoming a net oil importer in 1993. The United States also became more attuned to the dispute during this time period, due to concerns about China's emerging challenge to U.S. naval superiority in the western Pacific and the threat that it posed to the Philippines, a U.S. ally.

Hydrocarbon resources are one issue at stake in the South China Sea dispute. All claimant states would like to increase the amount of oil and gas resources under their control. However, estimates of the region's hydrocarbon endowments vary. China has issued the most optimistic assessments, claiming that the sea contains 125 billion barrels of oil and 500 trillion cubic feet of natural gas resources. In contrast the U.S. Energy Information Agency (EIA) is far more conservative, estimating that the sea contains 11 billion barrels of oil and 190 trillion cubic feet of natural gas reserves [9].[3] Moreover, many of the hydrocarbon deposits in contested portions of the South China Sea are situated in deep water, making them technically challenging and expensive to exploit. Most analysts therefore conclude that oil and gas competition is not the dominant factor driving the South China Sea dispute. Other issues at stake in the contest include the security of sea lanes, freedom of navigation, positional rivalry between the United States and China, and competition over fisheries.

Although far from the only issue involved in the South China Sea contest, oil and gas resources are a source of significant friction. A number of militarized incidents, culminating in the 2014 Sino–Vietnamese rig confrontation, have been provoked by hydrocarbon exploration [10]. Concern about further oil and gas-related contention is widespread (for example, [11]).[4] Yet, some parties to the dispute hope that, rather than inspiring conflict, hydrocarbon resources will be a catalyst for interstate cooperation. Former Taiwanese President Ma Ying-jeou [12], for example, has pushed for joint development of the South China Sea's oil and gas, proposing that claimant states "shift the focus from settling territorial disputes to jointly developing resources." Malaysia's Prime Minister, Najib Razak, has also endorsed this approach [13].

Proponents of hydrocarbon cooperation have two central goals. First, they aspire to develop oil and gas resources that would otherwise be inaccessible, due to ongoing territorial disputes. Second, some of them hope that hydrocarbon collaboration will improve states' broader relations by acting as a confidence building measure.[5] Oil and gas cooperation appears to be a plausible starting point for collaboration because, unlike political authority or control over sea lanes of communication, hydrocarbon deposits can be divided, creating joint gains. As Ma [12] put it: "although sovereignty cannot be divided, resources can still be shared." In addition, hydrocarbon cooperation is easier than fisheries cooperation because oil and gas reservoirs, unlike fish stocks, do not move. Moreover, numerous cooperative intergovernmental hydrocarbon agreements have been established globally, making the strategy appear viable.

However, in the South China Sea, hydrocarbon cooperation has a rocky history. In 2005, three of the claimant states' national oil companies (NOCs)—the Chinese National Offshore Oil Corporation (CNOOC), the Philippine National Oil Company, and PetroVietnam—established the Joint Marine Seismic Undertaking (JMSU): an agreement that committed the companies to collaborative seismic surveying of approximately 140,000 km^2 of maritime territory around the Spratly Islands.[6] Initially, operations proceeded smoothly. However, the accord collapsed in 2008, after an outpouring of popular resistance in the Philippines [14,15]. Since then, popular opposition to cooperation with China has increased, making joint development of the South China Sea's resources even more challenging. Since 2008, the only claimant states that have made further progress in hydrocarbon cooperation are Brunei and Malaysia, who announced in August 2015 that their NOCs, PetroleumBrunei and Petronas, would jointly develop two oil fields along their maritime boundary. Significantly, Brunei and Malaysia have much friendlier relations than many of the South China Sea's claimant states.

Numerous authors have evaluated the viability of more extensive hydrocarbon collaboration in the South China Sea [6,16–19]. However, these analyses have limited predictive power because they tend to assess the South China Sea case in isolation. In contrast, the following analysis examines comparable historical cases of oil and gas cooperation in order to gain greater purchase on the questions of whether further hydrocarbon collaboration is possible in the South China Sea and its likely effects.

3. Why cooperate?

Countries' incentives to cooperatively manage hydrocarbon resources arise from the mismatch between physical and political geography. Oil and gas reservoirs frequently traverse international boundaries or are located in areas where borders have not yet been established. Multiple states can therefore lay claim to these shared deposits and must decide how to manage them. Under these circumstances, each claimant states has three basic choices; it can leave the resources undeveloped, exploit them unilaterally, or collaborate with other claimant countries to exploit the contested reservoirs.

Refraining from resource development has obvious limitations; a state cannot profit from untouched hydrocarbon deposits and runs the risk of another country siphoning off an entire contested

[2] Indonesia claims waters around the Natuna Islands, but is not considered a South China Sea claimant.

[3] The EIA [9] figures are for proved and probable reserves. In addition, the agency reports that the sea may 5–22 billion barrels of undiscovered oil and 70–290 trillion cubic feet of undiscovered gas.

[4] Other oil-related militarized incidents include confrontations between China and Vietnam over the Wan'an Bei-21 field during the 1990s.

[5] These arguments are consistent with functionalist expectations about the impacts of economic cooperation on political disputes; for a resource-related summary of such arguments, see Lowi [35].

[6] This was an agreement between companies, not countries, and limited to seismic surveying; it did not include provisions for exploratory wells or resource development.