REPORT DOCUMENTATION PAGE					Form Approved OMB No. 0704- 0188		
maintaining the data needed, and suggestions for reducing the burde shall be subject to any penalty for fa	completing and re n, to the Departm iling to comply with	eviewing the collection of informat ent of Defense, Executive Service h a collection of information if it doe	tion. Send commen e Directorate (0704- es not display a curr	ts regarding t 0188). Respo	the time for reviewing instructions, searching existing data sources, gathering and his burden estimate or any other aspect of this collection of information, including ndents should be aware that notwithstanding any other provision of law, no person IB control number.		
PLEASE DO NOT RETUR			ANIZATION.				
1. REPORT DATE (DD-MI YYYY)	/- 2. REPC	ORT TYPE Research			3. DATES COVERED (From - To) Jul-Oct 2017		
4. TITLE AND SUBTITLE				5a. CON	TRACT NUMBER		
Filipino Failure: Joint Dev	elopment Agr	eement in the Reed Table	mount				
				5b. GRANT NUMBER			
				5c. PROGRAM ELEMENT NUMBER			
6. AUTHOR(S)				5d. PROJECT NUMBER			
Scott R. Raleigh							
				5e. TASK NUMBER			
5f WC				5f WOR			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)			5)		8. PERFORMING ORGANIZATION		
United States Naval War C	•				REPORTNUMBER		
Founders Hall, Building 10), Luce Ave, I	Newport, RI 02841					
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)					10. SPONSOR/MONITOR'S ACRONYM(S)		
United States Naval War C	e e	Novement DI 02941					
Founders Hall, Building 10	, Luce Ave, I	Newport, KI 02841			11. SPONSOR/MONITOR'S REPORT		
					NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT							
Approved for public release: distribution unlimited. The contents of this paper reflect the author's own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.							
13. SUPPLEMENTARY NOTES							
14. ABSTRACT							
The Philippines will suffer negative consequences if it enters into a joint development agreement with China for oil and gas in the Reed Tablemount							
(Bank) and surrounding Spratly Islands. As the SCS regional actors look to develop abundant natural resources, including oil and gas, the							
	-			-	d military tensions and created persistent diplomatic and		
informational conflict. In choosing to favor China in the development of oil and gas, the Philippines yields to China's developing military and 'absolute power' rather than the 'restraint of legality' afforded through sovereignty arbitration. A JDA enables Chinese aggression and excuses its history of poor							
relationships relating to economic development. The difficulties the Philippines will face include implied loss of sovereignty, negative economic impact,							
loss of energy needed for development, and acrimonious oil/gas partnership.							
15. SUBJECT TERMS							
SCS, Reed Tablemount, joint development agreement, oil/gas, China, Philippines							
16. SECURITY CLASSIFIC	ATION OF:			19a. NAM	IE OF RESPONSIBLE PERSON		
a. b. ABSTRACT c. REP	THIS PAGE	ABSTRACT	OF PAGES				
ORT U	U	UU	27	19b. TEL	EPHONE NUMBER (Include area code)		
U							
-					Standard Form 298 (Rev. 8/98) Prescribed by ANSI Std. 239.18		
					Adobe Professional 7.0		

Reset

Filipino Failure: Joint Development Agreement in the Reed Tablemount

Scott Raleigh

A paper submitted to the Faculty of the United States Naval War College Newport, RI in partial satisfaction of the requirements of the Department of Joint Military Operations.

DISTRIBUTION A. Approved for public release: distribution unlimited. The contents of this paper reflect the author's own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

October 27, 2017

Contents

Abstract	iii		
Introduction	1		
Background	2		
Implied Loss of Sovereignty Recent Administration Established Maritime Boundaries International Recognition	4 4 5 5		
Economic Impacts to the Philippines The "60-40 Split" Petroleum Lifecycle/Downstream Industry Losses Domestic Expertise & Capability Loss			
Energy Needs in the Philippines Populations Growth GDP/Trends Energy Use	10 11 11 12		
Historical JDA Relationships Middle East Mediterranean	13 13 14		
Counterargument			
Conclusion			
Bibliography			
Appendixes			

Abstract

Filipino Failure: Joint Development Agreement in the Reed Tablemount

The Philippines will suffer negative consequences if it enters into a joint development agreement with China for oil and gas in the Reed Tablemount (Bank) and surrounding Spratly Islands. The Philippines is one of many nations involved in the recent and welldocumented struggle against Chinese hegemony in the South China Sea (SCS). As the SCS regional actors look to develop abundant natural resources, including oil and gas, the competing claims have limited development of those resources. Further, the claims have heightened military tensions and created persistent diplomatic and informational conflict. In choosing to favor China in the development of oil and gas, the Philippines yields to China's developing military and 'absolute power' rather than the 'restraint of legality' afforded through sovereignty arbitration. A JDA enables Chinese aggression and excuses its history of poor relationships relating to economic development. The difficulties the Philippines will face include implied loss of sovereignty, negative economic impact, loss of energy needed for development, and acrimonious oil/gas partnership. Any one of these topics should give the Philippines pause. Taken together, these topics illustrate an excessive risk for a developing nation who has international backing as the sole executor of the Reed Tablemount and its energy.

INTRODUCTION

"The fate of every democracy, of every government based on the sovereignty of the people, depends on the choice it makes between these opposite principles, absolute power on the one hand, and on the other, the restraints of legality and the authority of tradition. It must stand or fall according to its choice, whether to give the supremacy to the law or to the will of the people."¹ - Lord John Emerich Edward Dalberg-Acton

In the summer of 2017, the top headline of Asia's largest finance journal read: "China to get 40 cents on every dollar of Filipino domestic oil supply". Although the headline is fictitious, the substance is factual. China's consistent threats have forced the Philippines to agree on joint oil and gas development with generous terms for the Chinese. The Filipinos will suffer negative consequences as it enters into a joint development agreement (JDA) with China for the Reed Tablemount (Bank) and surrounding Spratly Islands (Appendix A-1). The Philippines is one of many nations involved in the recent and well-documented struggle against Chinese hegemony in the South China Sea (SCS). As the SCS regional actors look to develop abundant natural resources, including oil and gas, the competing claims have halted or limited development of those resources. Further, the claims have heightened military tensions and created persistent diplomatic and informational conflict. Although Lord Acton's quote above intends to highlight authorities' balancing benevolent action in governance, it could be interpreted today as a warning to the Philippine nation. In choosing to favor China in the development of oil and gas, the Philippines yields to China's developing military and 'absolute power' rather than the 'restraint of legality' afforded through sovereignty arbitration. The difficulties the Philippines will face include implied loss of sovereignty, negative economic impact, loss of energy needed for development, and acrimonious oil/gas partnership. Any one of these topics should give the Philippines pause. Taken together, these topics illustrate an excessive risk for a developing nation who has international backing as the sole executor of the Reed Tablemount and its energy.

BACKGROUND

Philippine and China JDA specifics are not published but it can be assumed that a JDA will incorporate similarities to or be defined as a production sharing agreement (PSA). A PSA is an agreement between an extraction and production company (E&P) and a government that quantifies oil or gas extraction and payments to each entity. Amongst a '60-40 split' in favor of the Philippines, China, or its state owned petroleum company, will get 40 percent of either the resources or the profits. The JDA implies intent to award China the production rights which serves as an acknowledgment of capitulation to Chinese threats and undermines basic economic principles such as competition, auction, and healthy multinational partnership or development. PSA have a long history in the SCS region with use, in some form, by Brunei, Indonesia, Malaysia, and Vietnam.² These types of agreements pre-determine appropriations for the sharing agreement via equations that use some combination of royalties, cost recovery, profit sharing, income tax, supplementary payments, export duties, withholding taxes, or income taxes.³

Although the Philippines have been somewhat consistent in its messaging and reaction to contested areas in the SCS, recent diplomatic engagements are worrisome. Philippine President Rodrigo Duterte seemed to succumb to Chinese threats in May of 2016. In a meeting with Chinese premier Xi Jingpin, Duterte explained his intent to drill for oil and received the following response: "we want to maintain the presence of warm relationship, but if you force the issue, we'll go to war", and that in regards to oil exploration "do not touch it."⁴ Duterte's response to his nation was telling of his concerns explaining "what more could I say…what's the truth? We will be forced to go to war…we will have to fight.".⁵ He further suggested that with China's military capabilities, a war would be a massacre and it will destroy everything.".⁶

IMPLIED LOSS OF SOVERIGNTY

The first consideration highlighting negative impact to the Philippines from a JDA is the implied loss of sovereignty inherent in the deal. Historical claimants, recent administration and use, established maritime boundaries, and international recognition are methods of sovereignty determination in the Reed Bank. Chinese and Philippines objectives help address sovereignty for this issue. Any Filipino decision on the development or use of resources in its EEZ is the rightful decision of the nation, but in the greater context of this JDA, it appears the Philippines is looking at short term gain without acknowledging longterm impacts even as the government suggests any deal would honor its sovereignty.

Unless the tablemount is a de facto extension of the disputed islands themselves, analyzing sovereignty of the Reed Bank by recent administration is extremely difficult. Recent use helps illustrate sovereignty claims by the Philippines and China. The Philippines, Vietnam, and China claim the Reed Bank, known as the Recto Bank, Bai Co Rong, and Livue Tan respectively.⁷ Even more countries claim ownership over nearby Spratly Islands but the Reed Bank has no real estate above the water line. The conflict for this tablemount has arisen from natural resources, specifically oil and gas, suggested to be plentiful below the water. The Philippines established use of the area for resource development beginning in 1970 when they explored for oil and drilled an oil well the following year.⁸ The Chinese objected to the Filipino developments in the 1970s but was unable to counter via military means. In 2002, the Philippines awarded a Geophysical Survey and Exploration Contract (GESC) allowing drilling in the Reed Bank.⁹ The Philippines Department of Energy has parceled off development at Reed Bank with a 2005 contract given to a UK firm, which has held a 70 percent interest in oil drilling and at the Palawan oil fields east of the Reed Bank 2010.¹⁰ This time, China's protest was different because it finally had the means to interfere

via militarily means although its main line of effort in stopping Philippines developments has been through diplomatic protest.

The most significant sovereignty matter is international decree and, in the case of underwater resources at Reed Bank, the maritime boundaries agreed upon by the international community. International backing gives the Philippines its strongest claim. The 1982 United Nations Law of the Sea Convention (UNCLOS) defines maritime boundaries; China and the Philippines are both signatories..¹¹ This document defines international law for establishment of territorial seas, EEZs, and the role of continental shelves in determining legal responsibility. The Filipinos went to international court to request China's "nine-dash-line" claim as inconsistent with UNCLOS, determine the status of specific maritime features in the SCS, and enable them to exercise the rights within its EEZ and continental shelf..¹² Of note, the Philippines did not "seek in this arbitration a determination of which Party enjoys sovereignty over the islands claimed by both of them. Nor does it request a delimitation of any maritime boundaries."¹³ The arbitration request of the Philippines highlights their interest in exercising control of the natural resources at Reed Bank.

In July of 2016, the Permanent Court of Arbitration tribunal ruled against China, finding no legality to any "historic rights" beyond UNCLOS jurisdiction and no entitlement to a maritime economic zones extending from features in the Spratlys to include Reed Bank. Further, it concluded that China had impeded the sovereign rights of the Philippines having "breached" multiple articles of UNCLOS.¹⁴ The tribunals' findings may not have cleared sovereignty issues over some above-water features in the SCS but certainly granted the Philippines legitimacy and international backing to exercise its rights at Reed Bank.

In light of the delicate balancing act of the Philippines, China has shown its neighbors threatening behavior. The Reed Bank was the scene of a March 2011 incident in which China used patrol boats to harass a survey boat conducting operations in anticipation of oil development contracts awarded by the Philippines.¹⁵ Several demarches in the past decade highlight competing narratives of the two countries but marginally conceal the operational end state for China in access for resources in the SCS. China argues that Reed Bank is part of the Nanshan (Spratly) Islands and development by the Philippines as something China "cannot and will never accept.".¹⁶ Nevertheless, even as the Chinese government claims sovereignty over the Reed Bank and contested Spratly Islands, it expressed willingness to explore Filipino proposals on joint development, stating through diplomatic channels that it was "the best and most practical way to approach the issue pending the resolution of the disputes.".¹⁷

In failing to pursue its sovereignty claims at Reed Bank for fear of Chinese threats, the Philippines disregard its international backing. In the Philippines' 2014 document filing complaint against China for UN ruling, they remained very open to joint development and peaceful dialogue with their neighbor, going as far as to exclaim that "in the context of friendly relations with China, is open to Chinese investment in the Reed Bank under Philippines' laws.".¹⁸ Whereas continued dialogue and overtures of cooperation may make sense for the greater Spratly Islands dispute, any joint agreement for Reed Bank underrmines the Philippines sovereignty claims and reinforces the success of Chinese strategy of rhetoric and implied military threat. Filipino suggestions to remain "open to exploring possible modalities or mechanisms for managing disputes…including ideas on joint cooperation" within the Spratlys may be pragmatic idea for a country facing an aggressive regional neighbor with which it has territorial disputes. These responses increasingly appear like capitulation to Chinese threats. The Philippines may create many secondary issues in failing to carry out cooperation with China on its own terms. Further, it would be wise to attempt an

informational strategy that articulates its willingness to work with China strictly as a unilateral sovereign decision aside from any threat. As Premier Jingpin threatens any unilateral Filipino oil production at Reed Bank, other joint economic development with China increases unimpeded.

ECONOMIC IMPACTS TO THE PHILIPPINES

Economic impact specific to any JDA is the second consideration emphasizing negative impact to the Philippines. The warming presidential relationship with China signals willingness of the Philippines to secure larger development contracts with a regional adversary. On that front, Duterte delivered \$24 billion in development investment and loans from China in 2016.¹⁹ Fast forward one year, and agreements for development of the Reed Bank indicate China as the lone choice for partnership. Potential oil and gas development issues and domestic energy development capability highlight the overall negative economic impact of collaborating with China for oil development via a JDA.

The first economic concern is the split of revenue between China and the Philippines. In August of 2017, Philippine Foreign Secretary Cayetano assured Filipino lawmakers that any energy deal with China would conform to the Philippines receiving 60 percent revenue sharing and China receiving the remaining 40 percent.²⁰ This is the maximum China can receive according the Philippine constitution, which requires "joint venture, or productionsharing agreements with Filipino citizens, or corporations or associations at least sixty per centum of whose capital is owned by such citizens.".²¹ It is not clear how the percentage split would affect participating entities nor how exactly China would gain a 40 percent share.

Previous discussions between Chinese and Filipino oil companies offer useful insight. In 2014, the chairman and chief executive officer of the Philippines largest oil company, Philex Petroleum Corp, held discussions with officials of the state-owned China National Offshore Oil Corp (CNOOC)..²² He offered joint development in the Spratlys Islands and Reed Bank saying, "Philex will give CNOOC an opportunity to make an equity investment in Forum Energy under terms to be agreed.".²³ Philex, as the majority owner of Forum Energy, was awarded the government exploration contract in 2010..²⁴ Under this arrangement, China would receive a disproportionate amount of revenue by investing in production or by placement of CNOOC as the production company. Further, CNOOC would take advantage of Forum's \$80 million investment in the Reed Bank by entering into agreement after the risks of exploration had passed..²⁵ This move undermines Filipino sovereignty, removes international investment at Reed Bank, and eliminates economic competition.

Other economic detriments for the Philippines revolve around the 'lost' investment of exploration, development, and limited drilling at Reed Bank since 2002. As China enters into a JDA, they stand to gain from oil production without incurring early development costs. Similarly, Filipinos have invested in natural gas infrastructure and are aggressively planning for further development. If China diverts gas production to its shores, it will undercut these plans. Dr. Paul Sullivan, renowned energy expert and professor at the National Defense University and Georgetown, warns, "energy security is not just a measure of the access to and supply of energy, but also the affordability of it."²⁶ Large liquid natural gas (LNG) terminals are in development to achieve the government's goals to convert power stations to natural gas use and to take advantage of low gas prices worldwide. In June of 2017, the Filipino government announced plans to build a \$2 billion receiving and distribution facility for imported LNG by 2020.²⁷ This project has high interest from domestic energy firms and diverse international potential partners but is risky to security because of potential price volatility. Further, China increases risk to these types of investments with every dollar or barrel of energy diverted to its way. Infrastructure development becomes riskier and more

expensive with reduced domestic supply and increased transportation costs for imported LNG.

Domestic petroleum production brings economic benefits through the downstream oil industry that includes oil refineries, petrochemical plants, and products distribution. This portion of the oil and gas industry provides petroleum products such as such as gasoline, diesel, jet fuel, propane, natural gas, heating oil, lubricants, synthetics, plastics, fertilizers, pesticides, pharmaceuticals, and asphalt.²⁸ This produces a robust secondary economic market for retail products and jobs. Both the Philippines and China need these products as they both experience large growth. China produces 5.15 million barrels per day of oil but consumes 12.02 million barrels or 13% of the world's daily consumption.²⁹ Petroleum production has risen about 50% over the past two decades, serving only its domestic market and not keeping pace with demand.³⁰ During this period, China's national oil companies have used direct acquisitions, commercial investments, and loans in exchange for oil and natural gas supplies to rapidly secure resources to match demand.³¹ If their model holds true, they will expect to take their 40 percent from the Philippines in the form of oil and gas. This will prevent the Philippines from obtaining relatively cheaper oil from their domestic market with impacts to the downstream industries such as supply consistency, increased cost, and, reduced downstream capability relative to the shared resources of Reed Bank.

The last negative economic impact specific to a JDA is the influence to domestic oil and gas development capability in the Philippines. The country deregulated its oil industry in 1998 and has two major oil refinery companies in Petron and Pilipinas Shell.³² Although it lists 32 petroleum companies operating in country, there are few major players in the upstream industry.³³ Many companies appear to be local holding companies for foreign operators highlighting the already-limited national oil production capability..³⁴ The nation's major exploration capabilities reside within the Philippine National Oil Company (PNOC) and Shell Philippines Exploration B.V. (SPEX).³⁵ These two companies developed the Philippine's largest domestic source of energy at the Malampaya gas field in the SCS which provides Luzon with a third of its energy..³⁶ Additionally, the Philippines' wants to sell its stockpiled gas from Malampaya gas field, projected to deplete by 2024, to foreign investors..³⁷ It would use the proceeds for a LNG distribution center instead of taking out loans to build it..³⁸ This action shows a willingness to transition from domestic production-focused industry to import-dependent operations. Filipino efforts to produce and refine petroleum goods will become extremely limited if CNOOC takes over production at Reed Bank.

As existing oil and gas fields are sold to foreign firms and new developments are increasingly bid to the same, the Philippines oil production companies will experience limited or no opportunity to retain talent and 'know-how' within the industry. Further, jobs will be lost and oil costs downstream will be dependent upon upstream cycles owned by foreign companies in its domestic waters. Outsourcing these projects limits the substantial revenues allocated to domestic firms that can subsequently be invested into additional exploration, infrastructure, or jobs. Joint development reduces, limits, and/or terminates technical skills, manpower, and technology employed within the Philippines oil and gas industry. All of this will limit the Philippine government's ability to stimulate economic growth and improve Filipino living conditions.

ENERGY NEEDS IN THE PHILIPPINES

In addition to the JDA's negative impact to the Philippines economy, it is important to understand the growing energy needs within the country. To do this, one needs to look at the population growth, gross domestic product (GDP) coupled to trends of the population, and the nation's energy use. Like many developing countries, the Philippines are experiencing increased demand for energy and are looking to balance energy development amongst its growing list of infrastructure needs. Access to domestic sources of energy provides stability, reduces energy costs, and helps diversify overall energy goals in concert with future energy development or plans.

The Philippines energy needs tie directly to its growing population. Even with a slowing growth rate, the country's population will grow from 100 million people today to over 140 million by 2045.³⁹ This overall population growth underscores the need for larger sources of energy and helps to highlight the friction with China for limited resources in the SCS. Whether with oil or gas, these energy sources literally fuel development and help determine the cost of living experienced by the average Filipino. In a zero-sum world, every dollar of investment or drop of petroleum taken by China creates a lost opportunity cost for the Philippines in the form of domestic investment, infrastructure, jobs, and overall economic growth. Whether some population remains in a degraded developing economic state rests with the decisions made by the government in regards to its energy decisions, and most especially, its use of domestic resources.

Along with its growing population, the economic growth of the Philippines reinforces a greater need for energy security as the nation experiences improved standards of living. Economic growth has been excellent during the past few years. The country has made strides in reducing unemployment while attempting to increase infrastructure and all forms of direct investment. GDP has averaged 6.1 percent each year from 2011 and the per-capita GDP has risen to \$7700..⁴⁰ The government's energy consumption surveys in 2011 show that electricity is the most common source of energy used by nearly 87 percent of households..⁴¹ Since then, electricity consumption has increased by 28 percent in urban areas and 18 percent overall..⁴² One example of the growth of energy requirements is the increased use of personal electronics. In the last few years, overall smartphone use by Filipinos has more than doubled with 30 percent of the population using smartphones and projections showing significant increase.⁴³ This illustration indicates both the increased purchasing parity of the developing nation and the increasing demand on energy resources.

The last piece of understanding Filipino energy use is analyzing the sources and understanding the impact of imports. Oil accounts for 34 percent of Philippines energy supply while coal provides 24 percent..⁴⁴ The remainder is provided by a sizable renewables segment, biofuels/waste, hydro, and natural gas (Appendix A-2)..⁴⁵ In 2015, domestic oil production was marginal while roughly 93 percent of oil use..⁴⁶ Roughly 86 percent of the imported oil comes from the Middle East..⁴⁷ With a third of the nation's energy coming from oil and virtually all of it imported, the Reed Bank development quickly highlights the impact of any oil that departs for China. If the JDA does not call for the exportation of oil or gas to China, the loss of investment of 40 percent for the Philippines still reduces economic growth by limiting employment and petroleum by-product development.

Coal is the second largest source of Philippines energy and domestic production equated to roughly 27 percent of total use in 2015.⁴⁸ Coal use was virtually non-existent in the 1970s and its growth has dropped oil's share of energy use from a 1997 import high of 45 percent of total energy used (Appendix A-3).⁴⁹ According to the EIA, the United States Geological Survey estimates incredible amounts of oil and natural gas resources within the Spratly Islands-- with most located in the Reed Bank. The high-end estimate for oil would equate to more than 13 years of energy at current usage rates. Assuming the high-end estimate for natural gas at Reed Bank, the Philippines would have another 25 years at 2017 total energy consumption rates. Not only would this garner significant energy development and stability but also it would provide the country an opportunity to focus on energy efficiency and long-term energy sustainability plans.

HISTORICAL JDA RELATIONSHIPS

The next major point against joint development is the difficulty in relationships amongst nations who have entered into joint development agreements for oil and gas. Many of these shared fields exist in the Middle East. Iran and Qatar share the largest gas field in the world at South Pars/North Dome. This field has been controversial for Qatar because their economic relationship with Iran has strained its relationship with nearby neighbors such as the UAE and especially the Kingdom of Saudi Arabia.⁵⁰ Qatar is the world's third largest natural gas producer but first in exports.⁵¹ The North Field provides nearly all of Qatar's production and most of its export gas.⁵² Iran has not been able to produce its share of the field because of international sanctions over the past few decades. Recently, Qatar has looked to help Iran produce in an effort to ensure they do not fail in development and thus spoil production throughout the entire field.⁵³ This relationship has come at a cost to Qatar as its neighbors, Saudi Arabia, Egypt, the UAE, and Bahrain, put sanctions and severed diplomatic relations in the summer of 2017 which can be directly tied to Qatar's warming relations with Iran.

Saudi Arabia has led the efforts against Qatar this summer. Yet Saudi Arabia has its own tenuous business relationship with Iran in the Esfandiar, Farzad, Marjan, Lulu, and Dorra fields they share. These fields have been slow to develop and agreements are still pending. The size and economic impact will be huge as Iran estimates the development of the Farzad B field alone will cost \$5 billion.⁵⁴ The lack of development to date reflects Saudi Arabia's strong support of sanctions over the years and the well-documented history of the two nations' hostilities. Similar hostilities between Iran and the UAE have existed for

decades, as they share gas fields at Salman and Nora fields. In 1971, Iran and the emirate of Sharjah (UAE) signed a memorandum of understanding to divide energy resources at Abu Musa two days after Iran invaded the disputed, but uninhabited, Greater and Lesser Tunb islands.⁵⁵ As this issue escalates, it stands to derail joint development efforts. This issue parallels actions taken by China against the Philippines at Reed Bank.

Another well-documented hostility is the relationship between Iran and Iraq. They have developed many oil and gas fields together including Azar, Azadegan, Dehloran, Shahr, Paydar Gharb, and Aban fields.⁵⁶ The two nations look to use committees to settle disputes such as the location of oil wells based upon maps published before the Iran-Iraq war.⁵⁷ Iraq lost around \$17 billion due to Iranian violations of shared oil fields according to a report by The Institute of Development Studies.⁵⁸ This last issue alone shows the difficulty in creating and maintaining oil and gas JDA. The fact that "Iraq and Iran occasionally accuse each other of overstepping when it comes to the shared oil fields" shows the difficulty ahead for the Philippines and China.⁵⁹

Iran is not the only country highlighting issues and perils with JDA. UN sanctions in 2011 on Libya stalled Libyan and Tunisian development of the giant Zarat oil field..⁶⁰ This shows how countries can be stuck in a JDA based upon the other nation's behavior. Similarly, Israel's quarrels with Lebanon can be useful in showing the difficulty getting to formal and finalized agreement. Lebanon took maritime border disputes to the UN to argue that the giant Leviathan and Tamar gas fields were their territory before eventually abandoning their objection..⁶¹ This option could still play out with the Philippines before any formal and finalized JDA is set preventing development in the Reed Bank. JDA can be difficult because it is hard to get initial agreements in place and tough to produce resources.

Further, it takes much effort to maintain relationships through the life of the E&P and nations cannot push secondary political effects aside.

COUNTERARGUMENT

One might object to the Philippines/China JDA by pointing to the immediacy and collaborative effects of any agreement. First, this deal would give an ability to actually develop oil and gas immediately rather than push off indefinitely the ability to extract resources. Secondly, it would allow China to 'save face' on its claims and the Philippines to 'retain' sovereignty. Third, and maybe most importantly, it would prevent conflict in the SCS.

In understanding the immediacy of any actual production, it is important to understand that China and the Philippines have walked away from agreement before. In 2005, China walked back from its Joint Maritime Seismic Undertaking agreement (JMSU) with the Philippines and began aggressive unilateral engagement aimed at diplomatically and militarily pressuring Filipino oil and gas exploration..⁶² In 2012, China failed to withdraw its ships from the Scarborough Reef following a standoff with the Philippines even though it agreed to such terms via bilateral negotiation..⁶³ Quite simply, China's word means little after so many engagements where it contradicts its stated agreements with inconsistent action.

China cannot 'save face' on its claims or the Philippines nor can it 'retain' sovereignty of Reed Bank. China will continue to use all available means in order to achieve its desired objectives in the SCS. It has effectively used its '*Three Warfares*' strategy involving physiological, public opinion/effective use of media, and legal warfare to its advantage in forcing adversaries into agreements favorable to China..⁶⁴ Even though China is a signatory to UNCLOS and party to ASEAN's Declaration on the Conduct of Parties in the South China Sea (DOC), it has shown deliberate harassment of ships in international waters,

has reclaimed land in the Spratly Islands, and continues maritime disputes in direct refutation of international agreement..⁶⁵

JDA are not a guarantee of conflict prevention. China's actions at Mischief Reef in 1995 and Scarborough Reef in 2012 show its aggressive nature and willingness to escalate disputes. In 2011, China had agreed via bilateral commitment with Vietnam to open a hotline for potential maritime flare-ups and hold border negotiation talks twice a year in an effort to "solve maritime disputes through negotiations and friendly consultations.".⁶⁶ China claimed to "remain committed to friendly consultations in order to properly handle maritime issues and make the South China Sea a sea of peace, friendship and cooperation.".⁶⁷ In 2014, China finally removed an oilrig from the Paracel Island waters claimed by Vietnam.⁶⁸ In May of 2017, China placed the same oilrig into disputed waters near the Tonkin Gulf, as bilateral negotiations were ongoing with Vietnam to settle overlapping EEZ claims.⁶⁹ China has routinely shown unilateral action inconsistent with its own bilateral agreements and consistently undermines the sovereign rights of regional neighbors through use of the three Warfares concept.

CONCLUSION

The Philippines will suffer the negative consequences of sovereignty loss, reduced economic development potential, limited energy development, and assumption of partnership risk inherent with JDAs. Further, they will establish a precedent for similar Chinese behavior in the future. China's use of multilateral and bilateral agreements to its advantage, its deliberate sidestep of international law and/or findings, and the consistent threat of force amongst many of its neighbors should be a worry to all ASEAN members. With regard to international rulings, the Philippines should find evidence of China's goals in asking, "why would China conclude international agreements regarding any area to which it genuinely believed it had perfect title?".⁷⁰ The Philippines government may overlook these shortcomings and believe it is acting pragmatically in designing a JDA for the Reed Bank.

Philippine president Duterte and congress may both approve of a JDA, but the Filipino people are likely to see an agreement for what it is--a loss of sovereignty, resources, and economic potential—and as a capitulation of its people against Chinese threat. In overlooking the recent disputes in the SCS, the Philippines will brush aside Economic Exclusion Zone (EEZ) disputes, oil/gas ownership rights, and court rulings in their favor and open-the-door to other further disagreements—not just for oil and gas but for minerals and fishing rights too. Further, it will legitimize threat and aggressive behavior as a winning formula in future regional dispute, specifically enabling Chinese aggression. In facing a defacto loss of sovereignty by setting aside its UN ruling win, the Philippines will face negative economic impacts in giving away 40 percent of its domestic commodity in the Reed Bank. Further, it will lose energy needed for its growing nation's development and fail to heed historical oil/gas national partnerships risk seen in other regions. The Philippines risks much in working closely with China via a JDA for oil and gas production.

ENDNOTES

¹ John Acton, "Political Causes of the American Revolution," *The Rambler*, May 1861, 17.

² Fiscal terms in South-East Asia, Global Carbon Capture and Storage (CCS) Institute, accessed on October 05, 2017. https://hub.globalccsinstitute.com/publications/assessment-capture-and-storage-potential-co2-co-produced-natural-gas-south-east-asia/appendix-5-fiscal-terms-south-east-asia. ³ Ibid

⁴ Manuel Mogato, "Duterte says China's Xi threatened war if Philippines drills for oil," *Reuters,* May 19, 2017. https://www.reuters.com

⁵ Leila Salaverria, "Duterte: China threatened war." *Inquirer Global Nation*, May 20, 2017,

http://globalnation.inquirer.net

⁶ Ibid

7 David Rosenberg, "Digital Gazetteer of the Spratly Islands," *The South China Sea*, August 19, 2011, http://www.southchinasea.org/2011/08/19/digital-gazetteer-of-the-spratly-islands/

8 Marwyn Samuels, Contest for the South China Sea. 1st ed. (London and New York: Routledge, 2004)

⁹ Republic of the Philippines. Department of Energy. Prospects in the Philippine Oil and Gas Sector, by Vincent S. Perez Jr., Depatment of Energy (Taguig City, Philippines, 2002),

https://www.doe.gov.ph/sites/default/files/pdf/downloads/prospect.pdf

¹⁰ Scott Weedan, "Palawan Gas Development Sparks Chinese Protest," *Exploration & Production*, November 14, 2011, https://www.epmag.com/

11 United Nations, UN Treaties, accessed September 24, 2017, https://treaties.un.org/pages

¹² Permanent Court of Arbitration, PCA Case № 2013-19, July 12, 2016 accessed September 24, 2017,

https://pca-cpa.org/wp-content/uploads/sites/175/2016/07/PH-CN-20160712-Award.pdf

¹³ Ibid ¹⁴ Ibid

¹⁵ Jeremy Maxie, "Philippines Faces Post-Arbitration Dilemma Over Reed Bank," *The Diplomat*, July 13, 2016. http://thediplomat.com

¹⁶ Republic of the Philippines, *ARBITRATION UNDER ANNEX VII OF THE UNITED NATIONS. Volume IV*, Annexes. March 30, 2014, accessed on September 24, 2017, https://www.pcacases.com/web/view/7

¹⁷ Ibid

¹⁸ Ibid

¹⁹ Mayvelin Caraballo, "Duterte brings home \$24B from China," *The Manila Times Online*, October 21, 2016. http://www.manilatimes.net/

²⁰ Manuel Mogato, "Philippines says China agrees on no new expansion in South China Sea," *Reuters*, August 16, 2017, https://www.reuters.com

²¹ 1987 Republic Of The Philippines Constitution, Article XII, Section 2.

²² Theresa Martelino-Reyes, "Pangilinan offers Spratlys to Chinese oil firm in Reed Bank talks," *ABS-CBN News*, March 10, 2014, http://news.abs-cbn.com

²³ Ibid

24 Ibid

25 Ibid

²⁶ Paul Sullivan, "Four risks in energy security," *AICGS - The Johns Hopkins University*, 2013.

²⁷ Enrico Cruz, "Philippines eyes \$2-billion storage facility for LNG imports," Reuters, June 08, 2017,

http://www.reuters.com

²⁸ Havard Devold, *Oil and Gas Production Handbook: An Introduction To Oil And Gas Production*, S.I.: Lulu.com, 2013.

²⁹ "Independent Statistics and Analysis", U.S. Energy Information Administration (EIA), accessed on September 30, 2017, https://www.eia.gov/beta/international/

30 Ibid

³¹ Ibid

³² "Oil Supply / Demand Report FY 2012", Republic of the Philippines Department of Energy, accessed on October 01, 2017, https://www.doe.gov.ph/oil-supply-demand-report-fy-2012.

³³ "List Of Petroleum Companies Operating In The Philippines", Republic of the Philippines Department of Energy. accessed on September 25, 2017,

https://www.doe.gov.ph/sites/default/files/pdf/downloads/list_oilgeo.pdf.

34 Ibid

³⁵ "Overview of Malampaya, Power from the Deep", Malampaya, accessed on October 01, 2017,

http://malampaya.com/about/

³⁶ Ibid

³⁷ Danessa Rivera, "12 foreign firms eye Malampaya banked gas," *The Philippine Star*, September 17, 2017, http://www.philstar.com/

³⁸ Ibid

³⁹ Philippine Statistics Authority, Republic of the Philippines, last modified July 28, 2014,

https://psa.gov.ph/content/142-million-philippine-population-2045.

⁴⁰ The World Factbook: Philippines, Central Intelligence Agency, last modified September 27, 2017,

https://www.cia.gov/library/publications/the-world-factbook/geos/rp.html.

⁴¹ Philippine Statistics Authority

42 Ibid

⁴³ Klarize Medenilla, "Philippines: 'fastest-growing' smartphone nation in Southeast Asia," *Asian Journal*, June 18, 2016, http://asianjournal.com

⁴⁴ "Energy Production – Philippines", International Energy Agency, accessed on October 01, 2017,

http://www.iea.org/statistics

45 Ibid

⁴⁶ "Philippines Balance (2015)", International Energy Agency, accessed on October 02, 2017. http://www.iea.org/Sankey/#?c=Philippines&s=Balance.

⁴⁷ "Oil Supply / Demand Report FY 2012"

⁴⁸ Ibid

49 Ibid

⁵⁰ Mardo Soghom, "The Economic Incentive Behind Qatar's Iran Ties," *Radio Farda*, June 06, 2017, https://en.radiofarda.com

⁵¹ Ibid

52 Ibid

53 Ibid

⁵⁴ Omid Kalehsar, "Iran's Joint Fields Offer Development Partnership Opportunities," *Oil and Gas Journal*, Volume 115, Issue 1, January 02, 2017, http://www.ogj.com.

⁵⁵ Thomas Erdbrink, "A Tiny Island Is Where Iran Makes a Stand," The New York Times, April 30, 2012, http://www.nytimes.com

⁵⁶ Sara Al-Qaher, "Iraq, Iran agree to resolve dispute on joint oil fields," *Al-Monitor*, March 5, 2017, http://www.al-monitor.com

⁵⁷ Ibid

58 Ibid

⁵⁹ Ibid

⁶⁰ Oil and Gas Journal, "Libya-Tunisia: Zarat field judged to be a giant," June 11, 2011.

⁶¹ Barak Ravid, "U.S. backs Lebanon on maritime border dispute with Israel," Haaretz, July 10, 2011, https://www.haaretz.com

⁶² Ernest Bower, "The JMSU: A Tale of Bilateralism and Secrecy in the South China Sea," Center for Strategic and International Studies, July 27, 2010, accessed on October 06, 2017, https://www.csis.org/analysis/jmsutale-bilateralism-and-secrecy-south-china-sea.

⁶³ Ryan Santicola, "China's Consistently Inconsistent South China Sea Policy," *The Diplomat*, May 25, 2014, https://thediplomat.com.

⁶⁴ U.S. Department of Defense, Office of the Secretary of Defense, Office of Net assessment, "*China: The Three Warfares*", by Stefan Halper (MS: University of Cambridge, 2013).

⁶⁵ Declaration On The Conduct Of Parties In The South China Sea, *ASEAN*, last modified October 17, 2012.

http://asean.org/?static_post=declaration-on-the-conduct-of-parties-in-the-south-china-sea-2.

⁶⁶ Reuters, "China and Vietnam sign agreement to cool sea dispute," October 11, 2011.

67 Ibid

⁶⁸ Shannon Tiezzi, "Vietnam to China: Move Your Oil Rig out of the South China Sea," *The Diplomat*, April 09, 2016, https://thediplomat.com

69 Ibid

⁷⁰ Santicola, "China's Consistently Inconsistent South China Sea Policy."

BIBLIOGRAPHY

Acton, John. "Political Causes of the American Revolution." The Rambler, May 1861, 17.

Al-Qaher, Sara. "Iraq, Iran agree to resolve dispute on joint oil fields." Al-Monitor. March 5, 2017. http://www.al-monitor.com.

- Bower, Ernest Z. "The JMSU: A Tale of Bilateralism and Secrecy in the South China Sea." *Center for Strategic and International Studies*. July 27, 2010. Accessed on October 06, 2017. https://www.csis.org/analysis/jmsu-tale-bilateralism-and-secrecy-south-chinasea.
- Caraballo, Mayvelin U. "Duterte brings home \$24B from China." *The Manila Times Online*. October 21, 2016. http://www.manilatimes.net.
- Cruz, Enrico Dela. "Philippines eyes \$2-billion storage facility for LNG imports." *Reuters*. June 08, 2017. http://www.reuters.com.
- Declaration On The Conduct Of Parties In The South China Sea. ASEAN. Last modified October 17, 2012. http://asean.org/?static_post=declaration-on-the-conduct-of-parties-in-the-south-china-sea-2.
- Devold, Havard. Oil and Gas Production Handbook: An Introduction To Oil And Gas Production. S.l.: Lulu.com, 2013.
- Dillow, Clay. "US on edge over new powder keg in the South China Sea." *CNBC*, October 21, 2016. http://www.cnbc.com.
- "Energy Production Philippines", International Energy Agency, accessed on October 01, 2017, http://www.iea.org/statistics.
- Erdbrink, Thomas. "A Tiny Island Is Where Iran Makes a Stand." The New York Times. April 30, 2012. http://www.nytimes.com.
- Esposito, Mark, and Terrence Tse. "China's Growing Footprint in Africa is Potentially Damaging." *Fortune*. November 20, 2015. http://fortune.com.
- Fels, Enrico and Truong-Minh Vu. Power Politics in Asia's Contested Waters: Territorial Disputes in the South China Sea. New York, Springer, 2016.
- Fiscal terms in South-East Asia. Global CCS Institute. Accessed October 05, 2017. https://hub.globalccsinstitute.com/publications/assessment-capture-and-storagepotential-co2-co-produced-natural-gas-south-east-asia/appendix-5-fiscal-terms-southeast-asia.
- GMA News Online. "Envoy says PHL studying joint exploration with China in disputed waters." January 2, 2017.

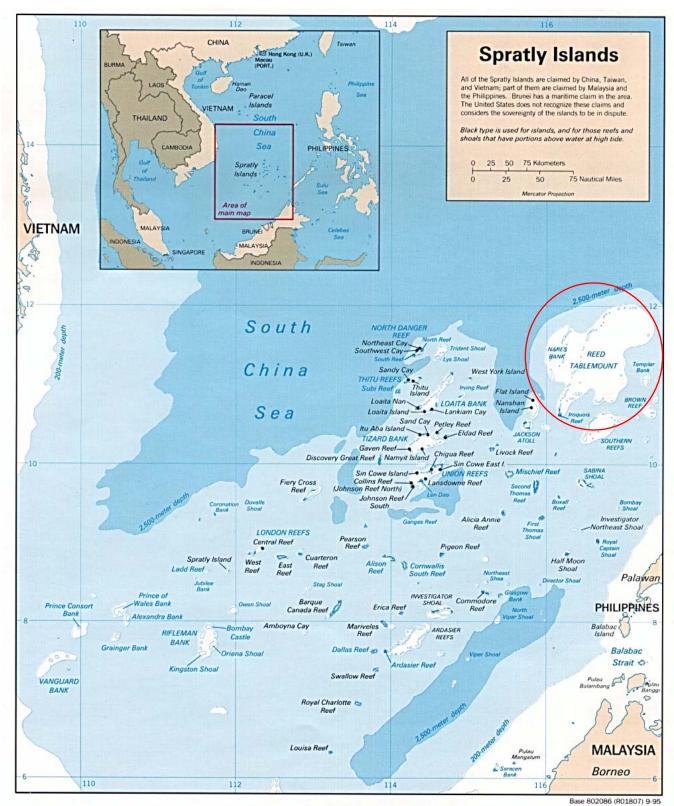
- "Independent Statistics and Analysis". U.S. Energy Information Administration (EIA). Accessed on September 30, 2017. https://www.eia.gov/beta/international.
- Kalehsar, Omid Shokri. "Iran's Joint Fields Offer Development Partnership Opportunities." *Oil and Gas Journal*, Volume 115, Issue 1. January 02, 2017. http://www.ogj.com.
- Kang Lim, Benjamin and Ben Blanchard. "China may give Filipino fishermen access to Scarborough." Reuters. October 18, 2016. http://www.reuters.com.
- "List Of Petroleum Companies Operating In The Philippines", Republic of the Philippines Department of Energy. accessed on September 25, 2017, https://www.doe.gov.ph/sites/default/files/pdf/downloads/list_oilgeo.pdf.
- Martelino-Reyes, Theresa. "Pangilinan offers Spratlys to Chinese oil firm in Reed Bank talks." *ABS-CBN News*. March 10, 2014. http://news.abs-cbn.com.
- Maxie, Jeremy. "Philippines Faces Post-Arbitration Dilemma Over Reed Bank." The Diplomat. July 13, 2016. http://thediplomat.com.
- Medenilla, Klarize. "Philippines: 'fastest-growing' smartphone nation in Southeast Asia." *Asian Journal.* June 18, 2016. http://asianjournal.com.
- Mogato, Manuel. "Duterte says China's Xi threatened war if Philippines drills for oil" *Reuters*, May 19, 2017. https://www.reuters.com
- Mogato, Manuel. "Philippines says China agrees on no new expansion in South China Sea." Reuters. August 16, 2017. https://www.reuters.com
- 1987 Republic Of The Philippines Constitution, Article XII, Section 2.
- Oil and Gas Journal. "Libya-Tunisia: Zarat field judged to be a giant." June 11, 2011.
- "Oil Supply / Demand Report FY 2012", Republic of the Philippines Department of Energy, accessed on October 01, 2017, https://www.doe.gov.ph/oil-supply-demand-report-fy-2012.
- "Overview of Malampaya, Power from the Deep". *Malampaya*. Accessed on October 01, 2017. http://malampaya.com/about/
- Pedrozo, Raul. "China versus Vietnam: An Analysis of the Competing Claims in the South China Sea." Center for Naval Analyses. August 2014.
- Permanent Court of Arbitration. *PCA Case Nº 2013-19*, July 12, 2017. Accessed September 24, 2017. https://pca-cpa.org/wp-content/uploads/sites/175/2016/07/PH-CN-20160712-Award.pdf
- "Philippines Balance (2015)", International Energy Agency, accessed on October 02, 2017. http://www.iea.org/Sankey/#?c=Philippines&s=Balance.

- Philippine Statistics Authority. Republic of the Philippines. Last modified July 28, 2014. https://psa.gov.ph/content/142-million-philippine-population-2045.
- Ravid, Barak. "U.S. backs Lebanon on maritime border dispute with Israel." *Haaretz*. July 10, 2011. https://www.haaretz.com.
- Republic of the Philippines. ARBITRATION UNDER ANNEX VII OF THE UNITED NATIONS. Volume IV, Annexes. March 30, 2014. Accessed on September 24, 2017. https://www.pcacases.com/web/view/7
- Republic of the Philippines. Department of Energy. *Prospects in the Philippine Oil and Gas Sector*, by Vincent S. Perez Jr., Department of Energy (Taguig City, Philippines, 2002), https://www.doe.gov.ph/sites/default/files/pdf/downloads/prospect.pdf
- Reuters, "China and Vietnam sign agreement to cool sea dispute," October 11
- Rivera, Danessa. "Philippines, China set up joint exploration in Palawan field." *The Philippine Star.* September 28, 2017. http://www.philstar.com.
- Rivera, Danessa. "12 foreign firms eye Malampaya banked gas." *The Philippine Star*. September 17, 2017. http://www.philstar.com
- Rosenberg, David. "Digital Gazetteer of the Spratly Islands." The South China Sea. August 19, 2011. http://www.southchinasea.org/2011/08/19/digital-gazetteer-of-the-spratly-islands/
- Salaverria, Leila B. "Duterte: China threatened war." Inquirer Global Nation, May 20, 2017. http://globalnation.inquirer.net
- Samuels, Marwyn S. Contest for the South China Sea, 1st ed. London and New York: Routledge, 2004.
- Santicola, Ryan. "China's Consistently Inconsistent South China Sea Policy." *The Diplomat.* May 25, 2014. https://thediplomat.com.
- Sasot, Sass Rogando. "All about the (G)Reed Bank: From Ferdinand Marcos Sr. to Albert del Rosario." Mindanation. July 18, 2016. http://mindanation.com.
- Soghom, Mardo. "The Economic Incentive Behind Qatar's Iran Ties." Radio Farda. June 06, 2017. https://en.radiofarda.com
- Sullivan, Paul. "Four risks in energy security." AICGS The Johns Hopkins University. 2013.
- Talmon, Stefan and Bing Bing Jia. *The South China Sea Arbitration: A Chinese Perspective*. Portland, Hart, 2014.
- The Manila Times. "Forum Energy to extend exploration in Reed Bank." July 10, 2014

- The World Factbook: Philippines. Central Intelligence Agency. Last modified September 27, 2017. https://www.cia.gov/library/publications/the-world-factbook/geos/rp.html.
- Tiezzi, Shannon. "Vietnam to China: Move Your Oil Rig out of the South China Sea." *The Diplomat.* April 09, 2016. https://thediplomat.com

United Nations. UN Treaties. Accessed September 24, 2017. https://treaties.un.org/pages

- Upstream Oil and Gas Roadmap 2017-2040, Republic of the Philippines. Department of Energy. Accessed on September 17, 2017. https://www.doe.gov.ph/pep/upstream-oil-and-gas-roadmap-2017-2040
- U.S. Department of Defense. Office of the Secretary of Defense, Office of Net assessment, *China: The Three Warfares*, by Stefan Halper (University of Cambridge, 2013).
- Weedan, Scott. "Palawan Gas Development Sparks Chinese Protest." Exploration & Production. November 14, 2011. https://www.epmag.com



APPENDIX A-1: SPRATLY ISLANDS/REED TABLEMOUNT MAP

Source: Map Library http://www.map-library.com/maps/maps-of-asia/maps-of-spratly-islands/large-detailedpolitical-map-of-spratly-islands.jpg

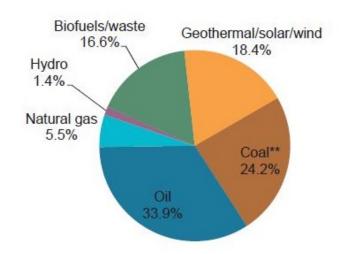
APPENDIX A-2: PHILIPPINES' ENERGY SUPPLY BREAKOUT (2015)

IEA Energy Statistics

Statistics on the web: http://www.iea.org/statistics/



Share of total primary energy supply* in 2015



Philippines

52 147 ktoe

* Share of TPES excludes electricity trade. ** In this graph, peat and oil shale are aggregated with coal, when relevant. Note: For presentational purposes, shares of under 0.1% are not included and consequently the total may not add up to 100%.

© OECD/IEA 2017

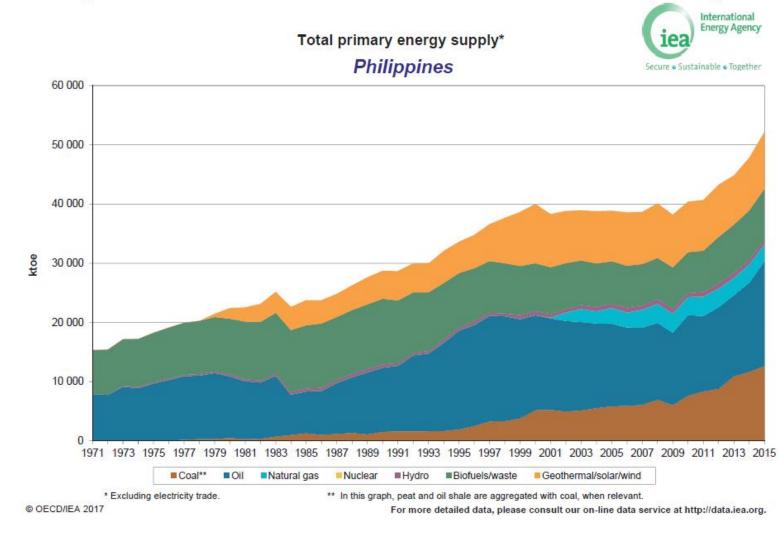
For more detailed data, please consult our on-line data service at http://data.iea.org.

Source: International Energy Agency http://www.iea.org/statistics

APPENDIX A-3: PHILIPPINES' ENERGY SUPPLY BY YEAR

IEA Energy Statistics

Statistics on the web: http://www.iea.org/statistics/



Source: International Energy Agency http://www.iea.org/statistics