

Article

**The Parties to the Nauru Agreement's Vessel
Day Scheme:
Accounting for the Rare Success of an
International Agreement**

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Abstract

International negotiations are notorious for their inability to reach agreements. If an agreement is reached, there are usually serious problems with the strength of the deal, defectors, and failure of implementation. The Vessel Day Scheme between the Parties to the Nauru Agreement (PNA), eight Pacific Island nations, is a modern example of a seemingly successful international agreement that addresses the overexploitation of the Pacific Island tuna fishery. The Vessel Day Scheme is increasing revenue to its parties through licensing fees, decreasing catch to ensure the continued existence of the tuna fishery, and leveraging the PNA to be a stronger international negotiator than the parties would be individually. Considering that many international agreements either fall through, are not ratified by important parties, do not achieve their goals in practice, do not beneficially affect the target resource because of loopholes or non-compliance, or suffer from other crippling problems, the PNA's experience seems unique. This Article identifies and analyzes the factors that enable the PNA to experience success at a time when many other international agreements are weak, stalled, or are not implemented or enforced in practice.

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**THE PARTIES TO THE NAURU AGREEMENT'S
VESSEL DAY SCHEME:
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Introduction

The Pacific Islands region is home to one of the largest tuna fisheries in the world.¹ Many people in the Pacific Islands depend on the tuna fisheries for their subsistence lifestyles and as a source of revenue, as many Pacific Island nations do not have any other significant natural resources due to their small landmasses.² It is well-known that the world's tuna fisheries have been overexploited for decades, leading many to fear the collapse of this valuable resource. The Pacific Islands tuna fishery is no exception. An unfortunate conundrum for Pacific Island nations is that while they depend on the continued existence of the fishery, their tuna-fishing fleets are not as industrialized or extensive as those of other fishing nations so, historically, they would not be able to compete with industrialized fishing nations even if they wanted to do so.³ Left unaddressed, this implies that a Pacific Island nation's best option for raising revenue for itself is to sell permits that would allow distant water fishing nations to fish in the Pacific Island nation's waters. Because the tuna fishery can be accessed from the waters of many different Pacific Island nations, industrialized fishing countries have the incentive to see which country would offer the lowest permit price, essentially bidding down the cost of a fishing permit. Unsurprisingly, this is exactly what happened in the Pacific Islands

¹ Margo Debye, *Making the Vessel Day Scheme (VDS) Work*, THE U.N. UNIV., FISHERIES TRAINING PROGRAMME 6, 10-11 (2007).

² *Id.* at 20-21; Robert Gillett, *A Short History of Industrial Fishing in the Pacific Islands*, FOOD & AGRIC. ORG. OF THE U.N. 1 (2007), available at <ftp://ftp.fao.org/docrep/fao/010/ai001e/ai001e00.pdf>.

³ Debye, *supra* note 1, at 4.

for many years.

In 1982, certain Pacific Island countries signed and ratified the Nauru Agreement, which declared a broad goal of harmonizing the fisheries management policies of the signatory nations.⁴ These parties became known as the Parties to the Nauru Agreement (“PNA”). In 1995, the PNA executed the Palau Agreement, which originally limited the number of ships that could fish in the PNA’s waters but was amended in 2007 to adopt instead the Vessel Day Scheme agreement.⁵ The Vessel Day Scheme controls tuna landings in the PNA’s waters by limiting the number of fishing day licenses that may be sold by each party.⁶ Under the scheme, licenses must be sold for at least the designated minimum price to ensure increased revenue for the PNA.⁷ The minimum price also prevents distant water fishing nations from pitting the PNA against each other to see which country will sell fishing licenses for the lowest price. The Vessel Day Scheme seems to be a successful international agreement, as it is reported to be legitimately reaching its goals of increasing revenue to its parties through licensing fees, decreasing catch to ensure the continued existence of the tuna fishery, and leveraging the PNA to be a stronger international negotiator than the parties would be individually.

Considering that many attempts at international negotiations do not meet with the same success as the PNA’s Vessel Day Scheme, this Article identifies and analyzes factors that may help explain why the PNA’s Vessel Day Scheme is successful. This Article concludes that factors may include the small number of parties involved in the negotiation of the agreement, the similar development and economic statuses of the parties, the parties’ similar interests and goals to reach through the agreement, and the fact that these parties have worked together as a coalition in negotiating an earlier notable tuna treaty.

⁴ Nauru Agreement Concerning Cooperation in the Management of Fisheries of Common Interest, art. I, Feb. 11, 1982 [hereinafter Nauru Agreement].

⁵ Palau Arrangement for the Management of the Western Pacific Fishery as Amended – Management Scheme (Purse Seine Vessel Day Scheme), amended Apr. 27, 2012 [hereinafter Purse Seine Vessel Day Scheme].

⁶ *Id.* at art. 12.

⁷ Resolution on Renewed Commitment to Cooperation in Fisheries Management and Development, PNA Resolution 01-2013, Mar. 1, 2013 [hereinafter Resolution on Renewed Commitment].

The conclusions made in this Article are limited, but they offer insight into the success of the PNA's Vessel Day Scheme agreement. These ideas shed light on how other groups of small, developing countries can join together to solve collective action problems, increase their international negotiating power, and protect natural resources on which they depend.

I. Background – The Pacific Island Tuna Fisheries and the Actions of the Parties to the Nauru Agreement

A. *A Snapshot of the Region and Resources at Stake*

The Pacific Islands region is located in the western and central parts of the Pacific Ocean and consists of twenty-two countries and territories.⁸ Because many of these countries and territories have very small landmasses, most of the area that they manage is ocean within their Exclusive Economic Zones (“EEZs”).⁹ EEZs extend 200 nautical miles from each country's shoreline.¹⁰ An extreme example of this is Kiribati, which has a land-to-sea ratio of 1:5,000.¹¹ The islands are also spread far enough apart that most of the Western and Central Pacific Ocean falls within the Pacific Island states' EEZs.¹² Because of this water-based geography, marine resources are very important to the economies and survival of the nine million Pacific Island people.¹³ Many of the Pacific Islands are considered developing nations.¹⁴

The tuna fisheries in this region account for approximately half of the world's annual tuna catch.¹⁵ Tuna are highly migratory species and travel longer distances than any other fish, usually

⁸ Gillett, *supra* note 2, at 1.

⁹ *Id.*

¹⁰ Pepe Clarke, *Management of Tuna Fisheries in the Western and Central Pacific*, INT'L UNION FOR CONSERVATION OF NATURE, available at <https://portals.iucn.org/library/efiles/html/EPLP-072/section11.html#fn1> (last visited Apr. 14, 2014).

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*; Gillett, *supra* note 1, at 1.

¹⁴ Clarke, *supra* note 10.

¹⁵ *Id.*

thousands of miles, to feed and spawn.¹⁶ This characteristic makes them difficult to manage and preserve because it prevents local, national, or patchwork legal frameworks from imposing improved management practices over the tuna's entire range. Once caught, tuna is a very valuable product and is sold primarily for canning and sashimi.¹⁷ Distant water fishing fleets, hailing from countries such as the United States, Japan, Taiwan, and South Korea, catch most of the tuna in the Western and Central Pacific Ocean.¹⁸

Tuna has been described as the Pacific Islands' most valuable resource.¹⁹ Because of the high market value for tuna, careful management and conservation of Pacific tuna populations is essential for maximizing economic benefits for Pacific Island people and development in the region. Small-scale fishing is essential to local Pacific Island subsistence economies, but industrial-level fishing may have great potential to support economic development in the region.²⁰ Industrial tuna fisheries in the Pacific Islands are worth more than seven times the other Pacific Island fisheries combined.²¹

Traditionally, the distant water fishing nations realize most of the benefits from tuna fishing in the Western and Central Pacific Ocean because they catch most of the tuna and host most of the canning facilities.²² However, in recent years, some of the Pacific Island states have joined together to recapture the value of tuna from within and outside of their EEZs by expanding their processing industry, creating and expanding domestic industrial fishing fleets, and jointly managing tuna stocks. This Article focuses on agreements

¹⁶ *Biological Characteristics of Tuna*, FOOD & AGRIC. ORG. U.N.: FISHERIES & AQUACULTURE DEP'T, available at <http://www.fao.org/fishery/topic/16082/en> (last visited Apr. 14, 2014).

¹⁷ *Tuna Resources*, FOOD & AGRIC. ORG. U.N.: FISHERIES & AQUACULTURE DEP'T, available at <http://www.fao.org/fishery/topic/12251/en> (last visited Apr. 14, 2014).

¹⁸ Clarke, *supra* note 10.

¹⁹ *Id.*

²⁰ *Id.* "Industrial fishing" is generally understood to mean offshore fishing in large vessels. Gillett, *supra* note 2, at 2.

²¹ Gillett, *supra* note 2, at 2.

²² Clarke, *supra* note 10 ("Historically, about 90 per cent of the total tuna catch in the Western and Central Pacific has been harvested by four distant-water fishing nations: Japan, Taiwan, South Korea, and the United States of America."); see also Gillett, *supra* note 2, at 10 (noting failed Pacific Island canneries and "stiff competition from efficient Asian facilities").

created by Pacific Island countries to manage and protect tuna stocks that are fished within and between the countries' EEZs.

B. The Beginning – The Forum Fisheries Agency and the Nauru Agreement

During the process to sign and ratify the Third United Nations Convention on the Law of the Sea (“UNCLOS”), the international treaty that established EEZs, seventeen Pacific Island states executed the South Pacific Forum Fisheries Agency Convention (“SPFFAC”), which entered into force on August 9, 1979.²³ The SPFFAC established the Pacific Islands Forum Fisheries Agency (“FFA”) to help Pacific Island states sustainably manage the fishery resources in their EEZs to improve economic and social well-being.²⁴ The FFA is a central source of expertise, technology, and information gathering and disseminating for the member states.²⁵ It focuses mainly on economic and legal issues rather than scientific or biological issues.²⁶ Unlike other international fisheries management organizations, the FFA was created specifically for the benefit of the Pacific Island states and excluded distant water fishing nations.²⁷ Amidst the hype of UNCLOS, the SPFFAC created a unified voice among the Pacific Island states that sent a strong message that these states intended to “enforce their sovereign rights over the marine

²³ South Pacific Forum Fisheries Agency Convention, July 10, 1979; *FFA Members*, PAC. ISLANDS F. FISHERIES AGENCY, available at <http://www.ffa.int/members> (last visited Apr. 14, 2014); *Regional Fishery Bodies Summary Descriptions: Forum Fisheries Agency (FFA)*, FOOD & AGRIC. ORG. U.N.: FISHERIES & AQUACULTURE DEP'T, <http://www.fao.org/fishery/rfb/ffa/en> (last visited Apr. 14, 2014).

²⁴ South Pacific Forum Fisheries Agency Convention, *supra* note 23, at art. I; Lisa K. Bostwick, *Empowering South Pacific Fishmongers: A New Framework for Preferential Access Agreements in the South Pacific Tuna Industry*, 26 L. & POL'Y INT'L BUS. 897, 901 (1995).

²⁵ South Pacific Forum Fisheries Agency Convention, *supra* note 23, at art. VII.

²⁶ Bostwick, *supra* note 24, at 901.

²⁷ *Id.* Rising tensions at UNCLOS due to the United States' refusal to recognize Pacific Island states' jurisdiction over tuna was a factor in the formation of the FFA as a group exclusive to the Pacific Islands. *Id.*

resources, i.e. tuna, in their respective EEZs.”²⁸

Certain parties to the SPFFAC—the Federated States of Micronesia, Kiribati, the Marshall Islands, Nauru, Palau, Papua New Guinea, and the Solomon Islands—went further to ensure economic benefits to their countries through their sovereign management rights over their EEZs. In 1982, they executed the Nauru Agreement Concerning Cooperation in the Management of Fisheries of Common Interest (“Nauru Agreement”).²⁹ The Nauru Agreement declared a broad and vague goal of harmonizing the management of fisheries in the parties’ EEZs without specific implementation measures.³⁰ The Nauru Agreement required the parties to eventually create a licensing and fee scheme for foreign vessels seeking to fish in the parties’ EEZs.³¹ These parties, which now include Tuvalu, are known as the Parties to the Nauru Agreement (“PNA”).

C. Implementation – the Palau Agreement and the Vessel Day Scheme

Even though the PNA includes only eight of the Pacific Island states, their EEZs encompass a significant tuna fishery that covers 14.8 million square kilometers.³² According to the PNA, twenty-five percent of the world’s tuna stocks and fifty percent of the global stock of skipjack live in PNA waters.³³

Maximizing the flow of economic benefits from the tuna fisheries to the PNA states and their citizens continues to be a concern for the PNA.³⁴ This is especially crucial for the PNA states,

²⁸ Kathleen M. Burch, *Due Process in Micronesia: Are Fish Due Less Process?*, 8 ROGER WILLIAMS U. L. REV. 43, 53 (2002).

²⁹ Nauru Agreement, *supra* note 4. Tuvalu is also now a party to this agreement. See *Pacifical*, PACIFICAL, <http://pacifical.com/index.html> (last visited Apr. 14, 2014).

³⁰ *Id.* at art I.

³¹ *Id.* at art. II.

³² *The 8 PNA Countries = 25% of the World Tuna Catch*, PACIFICAL, http://pacifical.com/the_pna_countries.html (last visited Apr. 14, 2014).

³³ *Id.*; *About Us*, PARTIES TO THE NAURU AGREEMENT, <http://www.pnatuna.com/About-Us> (last visited Apr. 14, 2014). Skipjack is the most commonly canned tuna. *About Us*, *supra*.

³⁴ *The Pacifical People*, PACIFICAL, <http://pacifical.com/people.html> (last visited Apr. 14, 2014).

which are still considered developing countries and estimate that only eleven percent of the profits from tuna caught in PNA waters return to the people of the PNA.³⁵

To better manage their valuable fisheries and implement the goals of the Nauru Agreement, the PNA needed an agreement with specific implementation measures. The Palau Agreement for the Management of the Western Pacific Fishery (“Palau Agreement”),³⁶ adopted in 1995, originally limited the number of purse seine vessels that were allowed to fish in PNA EEZs.³⁷ Purse seine vessels are commercial fishing ships that encircle entire schools of fish, enabling consistent, efficient, and large catches.³⁸ Because of the large impact of purse seine vessels, limiting their numbers would in theory help protect the tuna fisheries from overfishing. The original Palau Agreement management scheme was replaced in December 2007 by the Vessel Day Scheme, an amendment to the Palau Agreement.³⁹ The Vessel Day Scheme caps the total number of days of purse seine fishing in the parties’ combined EEZs and allocates fishing day licenses to parties based on historical catches.⁴⁰ The parties may then sell the licenses to foreign fishing fleets or other PNA countries and allocate the necessary number of licenses to domestic fisheries.⁴¹ The broad goals of the Vessel Day Scheme are to (1) maximize the PNA’s rate of return from tuna fishing in their waters and (2) reduce tuna catches to sustainable levels.⁴²

Setting up a licensing and fee scheme for any vessel fishing in PNA waters ensured that at least some money would flow back to the PNA from foreign fishing fleets that wanted to fish in the PNA’s tuna-rich EEZs. However, without a minimum fee, foreign fleets could pit the PNA against each other to determine which country

³⁵ *Id.*

³⁶ Purse Seine Vessel Day Scheme, *supra* note 5.

³⁷ *Id.* at art. 1; Debye, *supra* note 1, at 13.

³⁸ *Purse Seine*, INT’L SEAFOOD SUSTAINABILITY FOUND., <http://iss-foundation.org/purse-seine/> (last visited Apr. 14, 2014).

³⁹ Purse Seine Vessel Day Scheme, *supra* note 5.

⁴⁰ *Id.* at art. 12; Debye, *supra* note 28, at 5, 13.

⁴¹ Debye, *supra* note 28, at 22.

⁴² *Id.* at 13; *Vessel Day Scheme: Introduction*, PAC. ISLANDS F. FISHERIES AGENCY, <http://www.ffa.int/vds> (last visited Apr. 14, 2014).

would offer the lowest fee to fish in its EEZ.⁴³ This disadvantaged the PNA because they were forced to either accept low offers from foreign fleets in exchange for access to their high value marine resources or risk receiving no revenue. The revenue that the PNA countries received for access to their EEZs was lower than if they gathered collectively to set a baseline minimum fee to leverage themselves against the foreign fleets.

In 2011, the parties set a minimum price for fishing day licenses sold under their Vessel Day Scheme.⁴⁴ This move altered the power dynamic between the PNA and distant water fishing nations by preventing foreign fleets from pitting the PNA against each other to see which country would offer the lowest license price in exchange for the foreign fleet's business. Currently, license fees cost \$6,000 for one vessel for one day of purse seine fishing.⁴⁵ Vessels under fifty meters long count for a half day of fishing, a fifty to eighty meter vessel counts for a full day, and any vessel over eighty meters counts for one and a half fishing days.⁴⁶ The Vessel Day Scheme has characteristics similar to a cap and trade scheme, as the total allowable fishing days are capped, the days are distributed to the parties, and PNA countries can transfer their fishing days to other PNA participants.

The Vessel Day Scheme differs from other fisheries management schemes in that the licenses limit the number of fishing days rather than set catch limits. To ensure that licensees do not increase their daily catch ability over time, the PNA are briefed at their annual meetings on "observed or potential increase in average effective fishing effort for each fishing day[.]" called "effort creep" in the agreement.⁴⁷ The Palau Agreement requires that the parties

⁴³ This problem was recognized in a 2013 Memorandum of Understanding between PNA members. Memorandum of Understanding Between the Parties to the Palau Agreement on Minimum Bench Mark Fee for a Fishing Day Under the Vessel Day Scheme, Mar. 1, 2013 [hereinafter Bench Mark Fee Memorandum] ("...[T]he Parties are desirous of establishing a minimum bench mark fee for a fishing day under the Vessel Day Scheme for foreign fishing fleets to avoid these fleets undermining the Parties efforts by playing them off against each other.").

⁴⁴ Resolution on Renewed Commitment, *supra* note 7.

⁴⁵ *Id.*; Bench Mark Fee Memorandum, *supra* note 43.

⁴⁶ Purse Seine Vessel Day Scheme, *supra* note 5, at art. 6.1iv-vi.

⁴⁷ *Id.* at art. 2.4(ii).

take any measure necessary “to ensure such effort creep is not detrimental to the fishery.”⁴⁸ Although it may seem odd that an agreement that aims to reduce catch measures effort in units of fishing days rather than catch, it is likely easier to measure and enforce fishing days.

The Palau Agreement’s Implementing Arrangements establish minimum terms and conditions for fishing in waters controlled by the PNA. They require fishing vessels licensed under the PNA’s Vessel Day Scheme to have an Automatic Location Communicator in order to monitor the vessel’s location, speed, and course.⁴⁹ The most recent arrangement introduced catch retention measures to prevent lower value tuna from being excessively dumped overboard.⁵⁰ It also banned purse seine fishing vessels from using fish aggregating devices (“FADs”) between July 1 and September 30.⁵¹ FADs can be problematic for fisheries management because they increase catch.⁵² The most recent arrangement also prohibits PNA-licensed fishing vessels from fishing in international waters between PNA EEZs and within certain coordinates.⁵³ This unique development, discussed in-depth in Part I.D., gives the PNA some control over international waters, or the “high seas,” even though the PNA does not have jurisdiction over those waters.

D. Reaching Beyond National Management Boundaries – Regulating the High Seas

The PNA crafted a unique development to attempt to mitigate

⁴⁸ *Id.*

⁴⁹ A Second Arrangement Implementing the Nauru Agreement Setting Forth Additional Terms and Conditions of Access to the Fisheries Zones of the Parties, art. II, Sept. 19, 1990.

⁵⁰ A Third Arrangement Implementing the Nauru Agreement Setting Forth Additional Terms and Conditions of Access to the Fisheries Zones of the Parties, art. I(1), May 16, 2008 (amended Sept. 11, 2010) [hereinafter Third Implementing Arrangement].

⁵¹ *Id.* at art. I(2).

⁵² See *Fish Aggregating Device*, FOOD & AGRIC. ORG. U.N.: FISHERIES & AQUACULTURE, <http://www.fao.org/fishery/equipment/fad/en> (last visited Apr. 14, 2014).

⁵³ Third Implementing Arrangement, *supra* note 50, at art. I(3).

the problem of the migratory character of tuna and the lack of jurisdiction on the high seas. Because tuna are highly migratory and move between many different boundaries, the PNA were concerned that their efforts to foster a steady tuna population by limiting catch days in their EEZs would be undermined by unregulated fishing on the high seas.⁵⁴ In 2007, the PNA brought their concerns to the Western and Central Pacific Highly Migratory Fish Stocks Commission (“WCPFC”), a regional fisheries management organization that includes distant water fishing states like the United States and Japan.⁵⁵ Unfortunately, the WCPFC could not make a decision on how to regulate fishing on the high seas.⁵⁶

The PNA decided to act on its own. As a condition of the PNA’s Vessel Day Scheme license, PNA-licensed ships were not allowed to fish in the high seas pockets between the PNA EEZs.⁵⁷ Thus, a ship could either be licensed by the PNA to fish in an EEZ and agree to not fish the high seas, or not seek a license and be allowed to fish in the high seas but not any EEZs. This latter choice is economically difficult because “the majority of the main purse-seine fishing grounds in the Western and Central Pacific” are located in an EEZ that belongs to the PNA.⁵⁸ This collective action by the PNA influenced action by the WCPFC, and the next year, the WCPFC adopted a compatible measure.⁵⁹

E. Going Forward – Relying on Collective Action

The Vessel Day Scheme relies on compliance by all parties with regards to the price set for licenses and the number of licenses sold. If some Vessel Day Scheme licenses were not sold due to low demand, parties would have an incentive to defect from the agreement by offering their licenses for a lower price. If one party was to break the scheme and offer fishing day licenses at a lower

⁵⁴ Tim Adams, *Pacific Island Tuna Fisheries: New Bold Steps*, 58 TUNA FISHERIES 22, 23 (2011).

⁵⁵ *Id.* at 24.

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ *Id.*

price, foreign fishing fleets would presumably gravitate towards buying licenses from that party. This would decrease revenue brought to other PNA countries through the Vessel Day Scheme while increasing revenue for the one defector party.

Similarly, if all the available licenses were sold, parties would have an incentive to sell more licenses than they have been allocated under the Vessel Day Scheme. Selling more than the allocated number of licenses would fulfill one of the PNA's goals, to increase parties' economic gain from their fisheries, but would undermine the PNA's goal of ensuring the tuna's continued existence so that it can continue to be a source of profit in the future. A small number of licenses sold beyond the cap would likely not destroy the entire fishery. However, defectors can start the trend that makes the agreements irrelevant by undermining the scheme's legitimacy and the protective purpose of the agreements.

The Vessel Day Scheme has already experienced one defector. One party "significantly exceeded its Party Allowable Effort (PAE)," or the number of licenses that was allocated to that party.⁶⁰ The other parties agreed to not penalize that party "on the basis of that Party's assurance that the [Vessel Day Scheme] will be fully implemented in 2013 and beyond."⁶¹ The details of this defect are unclear. However, it is clear that the PNA took measures to reign in the defector and intend to continue with their collective agreement despite the occurrence of a defector.

II. Factors Contributing to the Success of the Parties to the Nauru Agreement's Vessel Day Scheme Agreement

The development and implementation of the PNA's Vessel Day Scheme should be considered successful. The parties created an agreement that was ratified by all parties and is in effect for all parties even though the agreement puts real constraints on all parties. Parties' revenues from fishing license fees have increased significantly and are continuing to increase due to their ability to

⁶⁰ Resolution on Renewed Commitment, *supra* note 7.

⁶¹ *Id.*

agree to raise the minimum licensing fee.⁶² Parties are also achieving real progress in tuna conservation (at least within and between their own EEZs – this claim is complicated because of tuna's expansive migration patterns), as fishing in a significant part of the fishable areas of the Western and Central Pacific Ocean has decreased to a level that, for now, the parties believe is sustainable. Considering that many international agreements fall through, are not ratified by important parties, do not achieve their goals in practice, do not beneficially affect the target resource because of loopholes or non-compliance, or suffer from other crippling problems, the PNA's experience seems unique.

Surely, there are domestic characteristics that likely affected parties' abilities to quickly and effectively construct and implement the PNA's Vessel Day Scheme. This Article does not address those factors. It instead focuses on international characteristics that led to the success of the PNA's Vessel Day Scheme.

Factors that likely contribute to the success of the PNA's Vessel Day Scheme agreement include the small number of parties that are involved in the negotiations, the similarities in the parties' development and economic statuses, the like-mindedness of parties in terms of their interests and goals for the agreement, and the fact that these parties have worked as a coalition before in negotiating a tuna treaty with the United States. None of these factors alone could ensure the success of the Vessel Day Scheme. Rather, it is the combination of these factors, and likely other factors not identified here, that caused the PNA's success.

A. Small Number of Parties Involved

Only eight parties were involved in the negotiations and outcomes of the Vessel Day Scheme agreement.⁶³ Involving only a small number of participants simplifies the negotiation process as, theoretically, each party has a greater chance to voice concerns, have those concerns addressed by other parties, and participate equally in the negotiations.

⁶² Deiy, *supra* note 1, at 2 (Figure 2).

⁶³ See Purse Seine Vessel Day Scheme, *supra* note 5, at Schedule 1 (listing the parties to the agreement); *Pacific*, *supra* note 29.

Of course, even bilateral international negotiations sometimes do not come to fruition, despite the low number of parties. Thus, while the small number of parties was likely helpful in successfully ratifying and implementing the agreement, other factors necessarily contributed as well.

B. Parties With Similar Development and Economic Statuses

The PNA are similarly situated in their development status and relationship with the global market. As already mentioned, all the parties to the Nauru agreement are considered developing countries, and some are even listed as “Least Developed Countries” by the United Nations.⁶⁴ None of them acting on their own are major international actors or have significant political sway. They are also similar in that they have small populations relative to other countries. All the PNA countries are influenced by their “small domestic market, remoteness from major markets, limited resource base, lack of a skilled and trained workforce, a narrow export base, heavy reliance on imports, poorly developed infrastructure and vulnerability to natural disasters.”⁶⁵

These similarities are important because they allow the parties to create an agreement with provisions that affect all involved countries equally. This prevents any one country from feeling disproportionately burdened by the action or funding required under the agreement.

Compare this to negotiations between countries that differ greatly in their development status, place in the global market, population, and wealth. For example, the United Nations Framework Convention on Climate Change’s (“UNFCCC”) Kyoto Protocol included countries along the entire development spectrum. The Kyoto Protocol separated parties into Annex I parties, which included industrialized countries as identified under the Organization for Economic Cooperation and Development and economies in

⁶⁴ *List of Least Developed Countries*, UNITED NATIONS, http://www.un.org/en/development/desa/policy/cdp/ldc/ldc_list.pdf (last visited Apr. 28, 2013) (including Kiribati, the Solomon Islands, and Tuvalu).

⁶⁵ Debye, *supra* note 1, at 1.

transition, and non-Annex I parties, which were considered developing countries, including countries with high greenhouse gas emissions, such as China and India.⁶⁶ Only Annex I countries were assigned quantified emission limitation and reduction objectives. This created problems as some Annex I countries protested carrying the burden of emissions reductions while high-emission, non-Annex I countries like China and India continued to increase their greenhouse gas emissions. This example is limited, as the UNFCCC negotiations include almost every country in the world. A negotiation with this many parties, even if they were all of similar status and market profile, would likely be difficult as well.

Another example stems from regional fisheries management organizations, which have fewer members than the UNFCCC, in particular the Western and Central Pacific Highly Migratory Fish Stocks Commission (“WCPFC”), discussed earlier. The WCPFC includes Pacific Island countries, including all of the PNA, and distant water fishing nations such as the United States, China, the European Union, and Japan, totaling twenty-five members.⁶⁷ The WCPFC requires consensus in its decision-making, and when the PNA brought their concerns about fishing on the high seas to the WCPFC, the diverse group of countries could not agree on high seas fishing regulations.⁶⁸ The parties were likely unable to reach consensus because of a split between parties with diverging fishing capacities and profit incentives. This is another example of the difficulty in reaching agreement because of status, market, and other economic differences between involved parties, even when the negotiating group includes a small number of parties relative to the UNFCCC.

Successfully creating and implementing an agreement that requires action, such as some sort of reduction or restriction, will be difficult when it involves parties with varying development and

⁶⁶ *Parties and Observers*, U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE, http://unfccc.int/parties_and_observers/items/2704.php (last visited Apr. 14, 2014).

⁶⁷ *About WCPFC*, W. & CENT. PAC. FISHERIES COMM'N, <http://www.wcpfc.int/about-wcpfc> (last visited Apr. 14, 2014).

⁶⁸ Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, art. 20(1), Sept. 5, 2000, 2275 U.N.T.S. 43.

economic statuses and thus capacity to act. The countries that believe themselves to be carrying a disproportionate burden have incentive to object. Negotiating with countries of similar development and economic status will place a similar burden on all countries, thereby reducing the likelihood of “disproportionate burden” objections by one party.

C. Similar Interests and Goals for Negotiations

Negotiating with like-minded entities is easier than negotiating with entities that fundamentally disagree as to the problem (or whether there is a problem) and the goals of the negotiation.⁶⁹ Because of the PNA’s similar statuses, discussed above, and similar dependence on their marine resources, particularly tuna, for subsistence use as well as economic gain, all eight parties entered into negotiations and agreements with similar management goals. These management goals were likely simplified due to the similarities in the parties’ geography, resources at stake, and interest in maximizing revenue from and continued existence of the resource at stake.

Fishing license fees are a primary source of revenue for the PNA, and most of the PNA states are highly dependent on the revenue from the licensing fees.⁷⁰ In most PNA countries, between twenty and fifty percent of each country’s GDP comes from licensing fees.⁷¹ Papua New Guinea is the least dependent on licensing fees (two percent GDP in 2000) because it is rich in non-marine resources and has a significant mining and agricultural sector compared to the other PNA countries.⁷² Palau is also less dependent on fishing fees because of its significant tourism industry, but fishing fees still represent anywhere between four and thirty-four percent of the GDP for each of Palau’s sixteen states.⁷³

Most of the people of the PNA rely on the health of the fisheries around their islands for their subsistence lifestyle and

⁶⁹ Debye, *supra* note 1, at 22.

⁷⁰ *Id.* at 1.

⁷¹ *Id.* at 20.

⁷² *Id.* at 20-21.

⁷³ *Id.* at 20.

cannot afford for the fisheries to collapse. Thus, ensuring the continued existence of a healthy fishery around the islands is not just crucial for the revenue it brings to the PNA, but also for the food that PNA citizens rely on for survival. Many PNA countries do not have a significant agricultural sector other than subsistence fishing, and therefore must import much of their food.

Additionally, the group's expansive joint EEZs, cohesive voice, and management scheme give the PNA more negotiating power than the parties had individually. Generally, bilateral agreements between individual Pacific Island states and distant water fishing nations dilutes the negotiating strength of the Pacific Island region as a whole.⁷⁴ The frustration of being mostly powerless, small, poor countries was part of the impetus to form the Southern Pacific Forum Fisheries Agency when the United States refused to recognize the Pacific Islands' jurisdiction over tuna in the Magnuson Fishery Conservation and Management Act.⁷⁵ The spillover effect of the Vessel Day Scheme in breaking the WCPFC stalemate over the management of fishing on the high seas reinforces how powerful small, developing countries can be when they organize and reach enforceable management agreements.

The degradation of the Western and Central Pacific Ocean tuna fishery is a major threat to the way of life for the parties. A legitimate management scheme not only protects the continued existence of the fisheries, but also increases the PNA's power in international negotiations. Thus, the similar goals made the parties' decision to enter negotiations relatively easier.

D. Previous Cooperation for Other Agreements

The PNA's success with the Vessel Day Management Scheme has also been attributed to the Pacific Islands' cooperation as a coalition in negotiating the Treaty on Fisheries Between the Governments of Certain Pacific Island States and the Government of the United States of America ("U.S. Treaty") in 1987 and the renewals in 1993 and 2003.⁷⁶ Until the U.S. Treaty, "the United

⁷⁴ Bostwick, *supra* note 24, at 910.

⁷⁵ *Id.* at 901.

⁷⁶ Deiyé, *supra* note 1, at 16; Bostwick, *supra* note 24, at 912.

States refused to acknowledge [n]either the island nations' ownership claims over tuna found within their EEZs [n]or their right to charge access fees to fish for tuna caught within their EEZs."⁷⁷ The U.S. Treaty negotiations began after the United States instated embargoes in retaliation against Papua New Guinea for seizing a United States vessel that was fishing illegally.⁷⁸ To solve the problem, the United States and sixteen Pacific Island states negotiated the U.S. Treaty, which secures licensing fees and fisheries-related technical assistance packages for the Pacific Island states.⁷⁹ The Treaty is considered a successful treaty for the Pacific Island states and a model for other international agreements.⁸⁰ Indeed, it is considered a major reason and model for the PNA's success in working together as a coalition to create the Vessel Day Scheme.⁸¹

Conclusion

The PNA's Vessel Day Scheme serves as a rare example of a successful international agreement. The parties continue to realize increased power in international negotiations and revenue growth from their valuable marine resources. They are implementing a management system to ensure the longevity and health of their tuna stocks to serve subsistence and economic purposes. The small number of parties involved, the parties' socio-economic similarities, the convergence of interests and united goals of the agreement, and the fact that these parties have previously worked as a coalition in negotiating the U.S. Treaty are all factors that contribute to the success of the PNA's Vessel Day Scheme agreement.

Additional primary sources are necessary to (1) conclude that these factors indeed contributed to the original and continuing success of the Vessel Day Scheme, (2) incorporate additional factors that played a role in the Scheme's success, and (3) address the other questions posed in this Article. However, the conclusions drawn in

⁷⁷ Bostwick, *supra* note 24, at 911.

⁷⁸ *Id.*

⁷⁹ *Id.*; *US Multilateral Treaty*, PAC. ISLANDS F. FISHERIES AGENCY, <http://www.ffa.int/taxonomy/term/441> (last visited Apr. 14, 2014).

⁸⁰ Bostwick, *supra* note 24, at 912.

⁸¹ Deiyé, *supra* note 1, at 16.

this Article are relevant starting points to further exploring these inquiries that may shed light on how other groups of small, developing countries can join together to solve collective action problems, increase their international negotiating power, and protect natural resources on which they depend.