

Assessing the Potential for Transferability of Access Rights to Enhance Sustainability in Large Pacific Tropical Fisheries

A Summary for Fishery Management Leaders

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OVERVIEW

Achieving the goals outlined in the Regional Roadmap for Sustainable Pacific Fisheriesⁱ will take a significant effort. The Western and Central Pacific tuna fisheries have been described as some of the world's most complex to manageⁱⁱ. Numerous management innovations and successes have already occurred, notably cooperation among nine Pacific Island countries and territories (PICTS) to create a Vessel Day Scheme (VDS) manage access to the purse seine tuna fishery under the Nauru Agreementⁱⁱⁱ.



In 2018, The Pacific Catalyst Advisory Body¹ suggested that a top priority for longer-term policy analysis and research would be to assess the potential benefits to PICTs from introducing transferability of tuna fishing rights. This is a summary of a comprehensive study conducted in response to that guidance. The intention of the study was to identify (i) options for transferability of tuna fishing rights in the context of Pacific Island tuna fisheries, (ii) potential benefits and costs to Pacific Island countries and territories, and (iii) key issues that would need to be considered by decision-makers in order to develop specific policy proposals. The study did not attempt to predict the costs and benefits of specific policy proposals for transferability, but rather serves as an initial scoping, creating the foundation for a detailed analysis, if so desired, and to provide information to support dialogue in the region.

CONCEPTUAL BASIS FOR DEFINING TRANSFERABILITY OF RIGHTS IN THE CONTEXT OF PACIFIC ISLAND TUNA FISHERIES

This project defined Pacific Island tuna “fishing rights” as authorizations to access and withdraw tuna from a given space, during a prescribed time period. “Transferability” was defined as the extent to which the rights can be divided and traded to others. In fisheries based on highly migratory species such as tuna, rights can be transferable on two different levels: (i) between states, and (ii) between authorized users (e.g. fishing companies). This project explores and discusses transferability of tuna fishing rights at the level of resource *users*, which is distinct from the question of transferability already in practice in the VDS among the PICTs. It is also distinct from the question of “pooling”, which refers to states cooperating to change the space to which the fishing rights they collectively issue applies. The characteristics of fishing rights created by the rules governing tuna fishing in the Pacific Islands are summarized in Table 1, in the cases of

¹ <https://pacificcatalyst.org/who-we-are/>

the purse seine and tropical longline fisheries.

Table 1. Description of the various rights and holders of fishing rights in Western and Central Pacific Ocean (WCPO) commercial purse seine and tropical longline tuna fisheries. Cells shaded in red are highlighted as particular characteristics of rights that could be strengthened. *In some cases, the Parties to the Nauru Agreement (PNA) have cooperated to issue individual effort authorizations to vessels, for a space larger than any one EEZ, but for the space equivalent to their collective EEZs.


	Theory (e.g. type of rights holder)	Spatial Coverage	Stringency	Time	Transferable (yes/no)
Regional	Western and Central Pacific Fisheries Commission (WCPFC) = claimant/ proprietor (specifies rules for states, fleets)	WCPO (100% match)	Low	Unlimited	No transfers between RFMOs
Sub-Regional	PNA = proprietor (specifies total effort, and portion allocated to members)	9 EEZs (purse seine ~75% of the fishery; longline ~30% of the fishery)	Medium	PNA total allowable effort determined annually. Right to utilize fishery held in perpetuity.	No transfers between sub-regional groups
National	PICTs = resource owner (specifies individual effort authorizations, as fishing days)	PICTs issue access rights for EEZs*	High	The formula for Parties' allowable effort is not fixed, and must be recalculated each year, though PICTs' rights to fish resources in EEZs are held in perpetuity	Yes, transfers allowed between PICTs of fishing days authorized for a given year, but not of perpetual rights
User	Individual entity (e.g. fishing companies) = authorized users	Authorization for specific EEZ only	High	1 year	No

Theory and empirical research suggest allowing trades between authorized users can help increase the overall economic outcomes from a fishery, by creating a market mechanism to ensure that marginal benefits are realized.^{iv, v, vi} Essentially, if one user can fish more profitably than another, they could purchase the right from the less efficient agent and increase profits for both participants in the trade and thus the fishery as a whole. In this case, that would mean increasing the maximum attainable public revenues PICTs could obtain from license fees.

Experience in other highly migratory fisheries has highlighted standard steps to introducing transferability of fishing rights between authorized users: (i) limit fishing based on a policy goal and determination of type of limits, e.g. effort or catch-based; (ii) allocate fishing rights among the group of states participating in the fishery; (iii) member states allocate fishing rights to authorized users; and then (iv) states allow transferability (between states and/or between authorized users).^{vii}

Perspectives of PICT leaders and tuna fisheries managers

The study summarizes the views expressed in semi-structured interviews with 21 senior Pacific Island fishery managers and thought leaders. Interview respondents indicated a wide spectrum of familiarity and experience with the concept of transferability in tuna fishing rights. In general, within Pacific Island governments, the concept is understood as referring to trades between states based on the example of the purse seine VDS. Several respondents identified the potential benefit to states with smaller and less productive zones that are not currently participating in the VDS, to transfer the rights they currently issue to users, to other states with zones where fishing access is in higher demand (i.e. as new participants in the



VDS they could transfer the fishing rights - denominated as fishing days – that they are allocated within the cap, to other participating states, rather than issue them to users for access to their EEZs). Multiple respondents also felt that introducing transferability between users would increase flexibility for companies, reduce costs, as well as increase access to finance by creating an asset in fishing rights. Another respondent emphasized that other property characteristics of the tuna fishing rights would likely need to be strengthened first in order to create demand for transferability (e.g. extending the duration of rights from one year to three, five or ten years). There were concerns that transferability may erode PICTs' control overfishing within their jurisdiction. Key questions included: (1) would PICTs be able to develop a mechanism to capture the economic benefits of transfers between users; and (2) would PICTs lose control as players potentially enter the fisheries via trades, rather than through bilateral agreements or relationships directly with governments? *Of those respondents that expressed an opinion about the potential costs and benefits of introducing transferability, roughly 55 percent were supportive of pursuing the idea, subject to doing so cautiously and with safeguards for the PICTs.*


Potential economic benefits to PICTs

The study assumed that domestic vessels are less profitable and would therefore trade their rights to foreign-registered vessels. This trading pattern would likely reduce both employment of Pacific Island nationals and other secondary benefits derived from locally-based operations. Given the employment-specific goals in the Roadmap, this study only focused on assessing the scale of the potential economic benefits to be gained from introducing transferability of fishing rights between authorized users with *foreign-registered vessels*.

The stylized model developed for the purse seine fishery did not look directly at specific PICTs. Instead, two hypothetical PICTs were created based on fishing productivity (i.e. total annual catch and catch per unit of effort, or CPUE). For PICTs with more productive fishing grounds, the *scale of the economic gains to the purse seine fishery are likely to be modest at best – on the order of 1 to 2 percent*. In less productive EEZs, the economic gains were negligible. These results are likely explained by the relatively small market size for trading fishing days in most Pacific Island countries and territories (limiting the surplus available for trades), as well as assumptions that many foreign-registered fleets are running vessel-level economic losses as part of vertically integrated firms. Additionally, the relatively short duration of the rights (one year) allows for new entrants without trading, further reducing demand for trades (where newer, more efficient operators might replace older, less efficient operators). Finally, many authorized users are part of associations or collectives, which purchase the rights from governments and then can transfer days among as many as 20 to 30 vessels in some cases. Given these conditions, the initial allocations of access rights, i.e. fishing days, may be relatively efficient, reducing further gains from allowing transferability in the current context. Reviewing current conditions in the longline fishery, it is evident there is not enough scarcity of tuna fishing rights to support a secondary market. Indeed, many PICTs have a surplus of vessel days, as high as 75 percent of their allocations in the longline VDS. Because the basic conditions required to support transferability of fishing rights are not in place, *it was not possible to quantitatively model effects of a introducing this change into the longline fishery.*

Legal issues and options for transferability of Pacific Island tuna fishing rights: current practice and models for the region

Currently, no Pacific Island country has a functioning legislative schemata allowing for full transferability of tuna fishing rights between authorized users, and in four countries the legislation effectively prohibits such transferability. However, personal property reforms, are taking place throughout the Pacific Islands, with personal property registration legislation in place in the Republic of the Marshall Islands, the Federated States of Micronesia, Papua New Guinea, Tonga, Fiji, Samoa, Solomon Islands, Palau and



Vanuatu. This trend will allow multi-national financial institutions to become familiar with the registries and make it easier to establish a transferable system of rights in the region because PICTs have similar legislative packages that create transparent and searchable registries. *The similarities in recent legislation adopted by a number of Pacific Island countries could be adapted relatively easily to facilitate transferability of tuna fishing rights between authorized users.* Essentially, PICTs would need to amend their national fisheries legislation to make ‘authorizations to fish’ a registerable instrument. To do this, registries would need to be designed and implemented for rights, and for the trades (e.g. added to the Fisheries Information Management System used in the purse seine fishery).

Implications for Pacific Island countries and territories

Although it would be relatively simple to adapt most Pacific Island legislation to allow transferability of tuna fishing rights between authorized users, the minimal/negligible economic benefits suggest that allowing transferability of tuna fishing rights between users may be an innovation whose time has not yet come. However, strengthening the property characteristics of tuna access rights may hold potential for increasing value in the fishery and advancing progress toward achieving the goals of the Roadmap. Referring to the framework outlined in Table 1, some options that may help increase economic gains, and subsequently create demand for transferability, include:

<u>purse seine</u>	<u>longline</u>
<ul style="list-style-type: none"> • Expand subregional cooperation by increasing the number of PICTs in the VDS and the EEZs in which fishing rights apply • Increase "pooling" among PICTs, i.e. the number of EEZs where a fishing day can be used • Extend the duration of fishing access rights, e.g. from one year to three, five or ten years • Allow "users" to transfer pooled fishing rights that have a < 1 year duration 	<ul style="list-style-type: none"> • Expand subregional cooperation, particularly in the tropical longline fishery by increasing the number of PICTs in the VDS and the EEZs in which fishing rights apply • Set a science-based subregional cap on fishing effort or catch • Allocate the cap on fishing among a group countries/territories subregionally

Although enhancing the transferability of rights may not be the first priority among the options to strengthen property right characteristics, it would be more likely be as incremental progress is made in other areas. All of these options, in both the purse seine and the longline fisheries, would of course have both costs and benefits for the PICTs, but further study would be needed to estimate the potential to generate further efficiency and increased benefits to the region.

ⁱ <https://www.ffa.int/node/1569>

ⁱⁱ Arnason, R. et al. 2015. Review of the PNA Purse Seine Vessel Day Scheme. Majuro: PNAO.

ⁱⁱⁱ Aqorau, T., Bell, J. and J. Kittenger. 2018. Good governance for migratory species. *Science* 361: 1208-1209

^{iv} Grafton, Q. 1996. Individual transferable quotas: theory and practice. *Reviews in Fish Biology and Fisheries* 6: 5- 20

^v Sterner, T. 2003. *Policy Instruments for Environmental and Natural Resource Management*. Washington, DC: RFF Press.

^{vi} Costello, C. et al. 2008. Can catch shares prevent fisheries collapse? *Science*, 321(5896), 1678-1681.

^{vii} Allen, R., Bayliff, W., Joseph, J., & Squires, D. 2010. Rights-Based Management in Transnational Tuna Fisheries. In R. Allen, J. Joseph, & D. Squires (Eds.), *Conservation & Management of Transnational Tuna Fisheries* (pp. 65- 86). Ames, Iowa: Wiley-Blackwell.