

**The Impact of Chinese Non-Tariff Barriers on the Taiwanese
Aquaculture Industry**

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ABSTRACT

Non-tariff barriers refer to non-tariff measures that have a negative impact on international trade. The political relationship between Taiwan and China has become increasingly tense in recent years. Mainland China has adopted economic strategies to influence Taiwan's industries. The aquaculture industry, which has long relied on exports to China, is one of the affected households.

This study explores the difficulties encountered by Taiwan's aquaculture industry due to China's implementation of non-tariff barriers and the effectiveness of the Taiwanese government's assistance policies for practitioners. This study adopted the interview as the primary research method.

The survey results show that in addition to small farms facing the most severe blow, the inability to transport directly to the mainland and shipping to Hong Kong has led to lower prices; fishermen who respond to the government's subsidy policy believe that the biggest beneficiaries are mid-tier traders. In this regard, this study can serve as a reference for the government to formulate policies in the future.

Keywords: Non-Tariff Barriers, Inland Aquaculture, Dependency Theory, Policy Effectiveness

中國實施非關稅壁壘對台灣水產養殖漁業的影響

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摘要

非關稅壁壘指普通關稅以外的政策措施，但卻對國際貿易產生負面的經濟影響。近年，台灣與中國的政治關係越發緊張，對岸採取經濟上的策略來試圖影響台灣產業，長年仰賴出口至中國的水產養殖業就是受災戶之一。本研究旨在探討台灣水產養殖業因中國實施非關稅壁壘而遇到的困境以及台灣政府對從業者的援助政策的有效性，使用訪談作為主要研究方法。調查結果顯示，除了小型養殖場面臨最為嚴重的打擊之外，因為無法直通大陸轉而運往香港導致價格降低；針對政府的補助政策漁民認為最大受益者為中盤商。對此，希望透過此研究為鑑，作為今後政府制定政策時的參考依據。

關鍵字：非關稅壁壘、內陸水產養殖、依賴理論、政策有效性

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INTRODUCTION

Background

Because the constraints of natural resources, Taiwan's fishing industry is well developed with advanced Research and Development (R&D). In addition to marine fishing, aquaculture is also pervasive. According to the statistics of the Taiwan Ministry of Finance in 2022, the total export value of aquatic products only accounts for 0.3% of the total export volume.¹ Despite this, Taiwan has climate and geographical advantages that aquaculture remains an important industry, providing livelihoods for countless fishermen. Nowadays, it is affected by non-tariff policies due to political factors in China and Taiwan since 2022.

This study will focus on the Inland Aquaculture Industry of Taiwan. Then, the researcher tries to figure out the ‘impact of China's implementation of non-tariff barriers (following called NTBs) on Taiwan's aquaculture industry.’ According to statistical data of Taiwan Fisheries Agency, Council of Agriculture, Executive Yuan, the total number of people employed in Taiwan's fishing industry was 319,783 in 2022. Due to being surrounded by the sea on all sides, Taiwan has an advantage in

¹ Department of Statistics, Ministry of Finance, “Statistical Bulletin No.6 ” (<https://service.mof.gov.tw/public/Data/statistic/bulletin/112/2022WTO.pdf>: Ministry of Finance, April 6, 2023).

coastal fisheries, while inland aquaculture ranks second with 64,926 people.

Accounting for 20.3% of the total workforce in the fishing industry.²

Inland aquacultures include freshwater ponds and brackish water ponds. The average production volume in the past decade was 279,533 tons per year. Taiwan's major farmed fish species, such as Taiwan Tilapia (*Oreochromis* hybrids, *Tilapia* spp.), milkfish (*Chanos chanos*), Grouper (*Epinephelinae*), and Perch (*Lateolabrax japonicus*) are mainly exported to countries such as mainland China, Arab countries, the United States, and Australia.³ Due to geographical and political reasons, exports to China are the largest.

China is currently the world's largest aquaculture producer. Its production has surpassed its fishing catch, accounting for 25% of the world's total fisheries production.⁴ However, they still need to import aquatic products from Taiwan or other countries. Taiwan's farmed fish mainly fill the seasonal gap in the Chinese market. Due to the continental climate, the coastal areas of China start to get cold after September. At this time, Taiwan's climate is relatively warm, it becomes the season to supplement the farmed fish market in China. Taiwanese fishing industry was satisfied with this market demand and opportunity.

² Fisheries Agency, Council of Agriculture, Executive Yuan, "FISHERIES STATISTICAL YEARBOOK TAIWAN, KINMEN and MATSU AREA 2022," September 2023.

³ 謝明惠 and 沈珍珍, "疫情下外銷新常態, 農產市場全球布局," *農政與農情* 342 (December 2020): 10–14.

⁴ 韓玉山. et al., *水產概論* (國立臺灣大學出版中心, 2021).

Since 2020, after the Democratic Progressive Party (DPP) won the presidential election, some sudden actions from China disrupted sales of Taiwanese farm products. On August 2, 2022, U.S. House Speaker Nancy Pelosi's visit caused the Beijing government to expand the action, including maneuvers and a ban on other citrus fruits, dozens of processed foods, and aquaculture products.⁵ Regarding the inland aquaculture industry, as early as December 30, 2021, the General Administration of Customs of the People's Republic of China issued a warning, stated that banned drugs were detected in the live fish exported by two Grouper operators in Taiwan.⁶ However, on June 10, 2022, that the transportation of Taiwanese Grouper to the mainland was suspended because banned drugs were found in multiple tests. The Fourfinger Threadfin suffered a disaster in December of the same year because the aquatic product registration had not passed.⁷ Come down one after another, those aggressive action have a serious impact on the fishermen. The signing of Cross-Strait Economic Cooperation Framework Agreement (ECFA) in 2011, in the Early Harvey List, promoted Taiwan's fishery export expansion to Mainland China.⁸ Many fish products had become the leading agricultural export. Unfortunately, China sudden ban

⁵ Klare, Michael T, "China Reacts Aggressively to Pelosi's Taiwan Visit," *Arms Control Today* 52, no. 7 (September 2022): 31–32, <https://www.proquest.com/scholarly-journals/china-reacts-aggressively-pelosis-taiwan-visit/docview/2714106833/se-2>

⁶ <http://dzs.customs.gov.cn/dzs/2746776/2753557/index.html>

⁷ <http://www.customs.gov.cn/customs/302249/zfxxgk/zfxxgkml34/4386621/index.html>

⁸ 胡其湘, "ECFA 對台灣漁業之影響與展望," *交流雜誌* 114 (December 2010), <https://www.sef.org.tw/article-1-129-5623>.

on Groupers' exports has shamed ECFA as well as given a warning to the ruling party of Taiwan. Not to mention, China also violated the agreement of World Trade Organization (WTO).

According to the Bureau of Foreign Trade, MOEA pointed out in the Taiwan Export Situation Analysis Report published in 2022 that the total export value of the food industry in 2021 was 481,768 billion USD 2022 due to the suspension of imports from mainland China, there was a significant decline to 448,227 billion USD, 7% of dropping.⁹ Bureau of Foreign Trade, MOEA mentioned in the "2021-2022 Trade Barriers to Taiwan by Countries" report that China's behavior is a non-tariff barrier (following called NTB) implemented through inspection and quarantine.¹⁰

To reduce farmers' and aquaculture industries' reliance on the Chinese market, the Council of Agriculture (COA) has done its best to expand and diversify export opportunities. Various subsidies were provided, including machines, freezers, etc. Everything is done to minimize negative impacts. In addition to the government's public information, the author believes that only by actually visiting some fishermen can we learn more about the effectiveness of those public policies. This research aims to find out the applicable suggestion that might help local fishing industry.

⁹ Bureau of Foreign Trade, MOEA, "2022 年度 臺灣出口情勢分析," February 6, 2023, <https://www.trade.gov.tw/Files/PageFile/762840/762840bvuu320230601113219.pdf>.

¹⁰ Bureau of Foreign Trade, "2021-2022 年各國對臺貿易障礙," July 12, 2022, https://www.trade.gov.tw/Pages/Detail.aspx?nodeID=4539&pid=746208&dl_DateRange=all&txt_SD=&txt_ED=&txt_Keyword=&pageindex=1&history=

The New York Times pointed out that implementing non-tariff barriers significantly impacted Taiwan's aquaculture industry because Taiwan was too dependent on mainland China.¹¹ This research illustrates the inseparable relationship between Taiwan's Aquaculture Industry and China through Dependency Theory. From the perspective of the Taiwan Aquaculture Industry, discuss "the dilemma caused by China's implementation of non-tariff barriers to the Aquaculture Industry" and exam "Taiwan government's policies that help the Aquaculture Industry to overcome the problem efficiently."

Motivation

Because of different ideologies, one is democratic and the other is authority. In addition, as China is one of the world power countries, Taiwan often faces sudden policy impacts from mainland China. The first non-tariff attack is fruits industry, then this time is the aquaculture industry. We cannot know which industry will face this crisis next time if the bilateral trading relationship is established based on the political relationship instead of economic benefit for both countries. The disruption of the business relationship is always a crisis. In the era of big data, each piece of data

¹¹ Amy Chang Chien, "First Pineapples, Now Fish: To Pressure Taiwan, China Flexes Economic Muscle," *The New York Times*, June 22, 2022, sec. Business, <https://www.nytimes.com/2022/06/22/business/china-taiwan-grouper-ban.html>.

covers a wide range, statistics figures cannot represent all aquaculture industries, nor can it represent that every fisherman encounters the same problems. The Author would like to figure out the impact of China's adoption of NTBs policies on Taiwan's aquaculture industry from the perspective of "Taiwan's Aquaculture Industry practitioners." Thus, this study examines the efficiency of Taiwan government's policies as well as realizes the challenges of non-tariff policy of China on Taiwanese fishing industry.

Research Purpose

This research aims to explore the difficulties and challenges encountered by the Taiwanese aquaculture industry due to China's implementation of NTBs. Then, the researcher will evaluate the effectiveness of the Taiwanese government's assistance policies for practitioners when the aquaculture industry has received substantial assistance. Through the research findings, this study tries to provide applicable suggestions.

Research Questions

1. What do the Taiwanese aquaculture industry practitioner view China's non-tariff barriers behavior?
2. What are the dilemmas that caused China's implementation of non-tariff barriers to the Taiwan Aquaculture Industry?
3. Examining whether the Taiwan government's policies that aim to help the Aquaculture Industry overcome the problem is efficient and effective? .

Contribution

The author hopes that after analyzing the collected data, it can discover the difficulties faced by Taiwanese fishermen and understand the policy's effectiveness from the in-depth interviews. Then, this study will provide the government with reliable information that can be used as a reference when formulating policies in the future.

Limit

The biggest limitation of this study is that the author could not personally conduct research in mainland China. Secondly, the interviewers' opinions in this study represented the position of certain fishermen who probably have biases regarding Mainland China.

Delimit

The author attempts to apply official information that was provided by the governments of both sides to serve as a supplement. The discussion of the dilemmas of being unable to fly between the two places and selecting experienced stakeholders from among them to conduct interviews for stabilizing the accuracy of the research is the major approach to delimit the constraints. Therefore, the author selected candidates who work in the industry so that the practitioners will make up the gap and provide sufficient information.

LITERATURE REVIEW

Non-Tariff Barriers

According to the definition of the United Nations Conference on Trade and Development report, Non-tariff barriers are the negative trade impacts extended by non-tariff measures. Non-tariff measures refer to policy measures other than ordinary tariffs that may create a negative impact on international trade economically by changing traded quantities, prices, or both.¹² In addition, NTBs are defined by the Organization of American States (OAS) as non-tariff measures that have strong protectionism. For example, quotas, tariff quotas, licensing systems, and price ranges. It is also believed that some measures of NTMs will constitute NTBs.¹³ Applying these strategies, China has banned some fishery imports from Taiwan. For Taiwan, aquaculture industries might consider it negatively affecting their livelihood. It is really a dilemma if the research only covers one side story.

Under the global trade system, there are still a few deviations in the definition of NTM. This study will use the NTM international classification compiled by the MAST group of the United Nations Conference on Trade and Development. It

¹² United Nations Conference on Trade and Development, Anne-Célia Disdier, and Marco Fugazza, *A Practical Guide to the Economic Analysis of Non-Tariff Measures*, www.un-ilibrary.org (United Nations, 2020).

¹³ SICE, “Dictionary of Trade Terms - Tariffs and Non Tariff Measures,” www.sice.oas.org (The Organization of American States, n.d.).

claimed the classification does not judge the NTM used in international trade.

Legality, adequacy, necessity, or discrimination of any policy intervention.¹⁴ The

following information are listed to illustrate of the definition details.

Table 1 Classification of non-tariff measures

Item	Term
A	Sanitary and phytosanitary measures
B	Technical barriers to trade
C	Pre-shipment inspection and other formalities
D	Contingent trade-protective measures
E	Non-automatic import licensing, quotas, prohibitions, quantity-control measures and other restrictions not including sanitary and phytosanitary measures or measures relating to technical barriers to trade
F	Price-control measures, including additional taxes and charges
G	Finance measures
H	Measures affecting competition
I	Trade-related investment measures
J	Distribution restrictions
K	Restrictions on post-sales services
L	Subsidies and other forms of support
M	Government procurement restrictions

¹⁴ <https://unctad.org/topic/trade-analysis/non-tariff-measures/NTMs-classification>

N	Intellectual property
O	Rules of origin
P	Export-related measures

(Source: United Nations Conference on Trade and Development, 2019)

According to a report by the Taiwanese International Trade Administration in "Barriers to Trade Between Countries with Taiwan in 2022-2023"¹⁵. China takes sanitary and phytosanitary measures against Taiwan. The reason is that the quarantine procedures are not up to standard. The content is as follows:

“In 2022, Taiwanese exports of citrus fruits, chilled hairtail fish, frozen bamboo fish, grouper, etc., will be banned from importation on the grounds that they have been found to contain pesticide residues, banned drugs, and positive tests for the new coronavirus.”- International Trade Administration

This behavior has had an impact on Taiwanese industry. It has caused negative economic impacts on domestic agriculture and fisheries and has been recognized as a non-tariff barrier by the Taiwan government.

Dependency Theory

Dependency theory was established based on the international differentiation that is ostensibly concerned with the international division of labor. Despite this, it is primarily concerned with distribution rather than production, focused on distribution

¹⁵ https://www.trade.gov.tw/App_Ashx/File.ashx?FileID=5E174AF5B33E4D39

between countries rather than between classes.¹⁶ Vladimir Lenin linked this concept to capitalism and expansionism. He criticized the core countries' exploitation of resources from the peripheral countries in the name of industrialization.¹⁷ Core-periphery dependence is a major concept in the theory.

Dependency theory was proposed in the late 1950s by Argentine economist and politician, Raúl Prebisch, and it became prominent in the 1960s and 1970s.¹⁸ It was first originated in Latin American studies. Brazilian scholar Dos Santos believed that it a country's economy is affected by the development of another country. The dominant government can maintain economic growth or improve relationships; on the contrary, other dependent countries may produce positive or negative influences.¹⁹ The difference between the core and the periphery is formed. This study takes Marxist dependency theory as the central axis and is divided into two schools: traditional dependency and dependency development. The underdevelopment school has Frank, Santos, and others, in contrast, the dependency development theory school has Cardoso, Faletto, and other scholars as supporters.²⁰

¹⁶ Howe, Gary Nigel. "Dependency Theory, Imperialism, and the Production of Surplus Value on a World Scale." *Latin American Perspectives* 8, no. 3/4 (1981): 82–102. <http://www.jstor.org/stable/2633471>.

¹⁷ Chien-Cheng Yen, "Rethinking Dependency Theory: Origins, Schools and Prospection" (Social and behavioral sciences, 2007).

¹⁸ Munro, A. "Dependency theory." *Encyclopedia Britannica*, April 26, 2023. <https://www.britannica.com/topic/dependency-theory>.

¹⁹ Young Namkoong, "Dependency Theory: Concepts, Classifications, and Criticisms," *International Area Review* 2, no. 1 (March 1999): 121–50, <https://doi.org/10.1177/223386599900200106>.

²⁰ Chien-Cheng Yen, "Rethinking Dependency Theory: Origins, Schools and Prospection" (2007).

Traditional Dependency

Andre Gunder Frank, a German American sociologist and economic historian, suggests that liaison between developed and underdeveloped countries is not a solution but a problem.²¹ The emphasis on the core countries exploit the economic surplus of the frontier countries for their own benefit and promote their own development, resulted in the frontier countries become more developed and are able to keep their economic production surplus.²²

Therefore, the underdevelopment school believes that there is an unequal exchange relationship in the core-periphery, which makes developing countries show low development.

Dependency Development

Cardoso, former president of Brazil, in 1977, argued that the basic dependency situation formed by society was a product of capitalist expansion and colonialism served as the example of the interface between dependent and dominant societies. In the transition from the colonial situation to the dependency situation of the nation-state, the following observations are made: firstly, this process implies the creation of

²¹ Kay, Cristóbal. "André Gunder Frank: From the 'Development of Underdevelopment' to the 'World System.'" *Development and Change* 36, no. 6 (2005): 1177–83. doi:10.1111/J.0012-155X.2005.00455.

²² Frank Andre Gunder. 1969. *The Development of Underdevelopment*. Indianapolis: Bobbs-Merrill.

states to respond to the interests of the local property-owning classes; secondly the locally dominant classes suffer from specific double exploitation.²³ The internal economic development of industrial frontier countries does not derive primarily from advanced technology or capital inflows from outside but from political arrangements.²⁴

Dependency behavior in developing countries leads to high economic growth. It gradually solves social problems by increasing productivity, for example, by increasing domestic capital and slowly democratizing the political system to win economic independence.²⁵ Egyptian scholar Samir Amin argued that governments in periphery countries must work hard to create their own economic independence and highly productive leading businesses. ²⁶

Table 2 The difference between traditional dependence and dependence development

	Traditional Dependency	Dependence Development
Representative Figure	Andre Gunder Frank, Dos Santos	Fernando Henrique Cardoso, Enzo Faletto

²³ 10. Cardoso, Fernando Henrique. "The Consumption of Dependency Theory in the United States." *Latin American Research Review* 12, no. 3 (1977): 7–24. doi:10.1017/S0023879100030430.

²⁴ Cardoso, Fernando Henrique and Faletto, Enzo. *Dependency and Development in Latin America*. Berkeley: University of California Press, 1979. <https://doi.org/10.1525/9780520342118>

²⁵ Ohnishi, Hiroshi. "Modernism and anti-modernism on development strategies: Lenin and the theory of dependency". [京都大学経済学部] Working paper. 京都大学経済学部, no. 28 (1995).

²⁶ Haldun Gülap, "Debate on Capitalism and Development: The Theories of Samir Amin and Bill Warren," *Capital & Class* 10, no. 1 (February 1986): 139-59, <https://doi.org/10.1177/030981688602800108>.

Dependence and Development	Mutually exclusive, resulting in low development	Coexisting with each other, combining dependence and development
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(Source: making by author)

A "core-periphery" binary relationship is formed between developed and undeveloped countries. Both schools of thought believe that dependence is harmful to development. In addition to the ideological dominance of dependence theory, the core countries also use many economic mysteries to cause the periphery countries to lose their pursuit of subjectivity and passively accept the unfair division of labor order, thus lacking bargaining chips. Therefore, to get rid of the fate of dependence, the government and enterprises must be more ambitious, independent, and decisive.

The degree of Taiwan's dependence on China

This study attempts to identify the dependent relationship between Taiwan and China. First, Taiwan's dependence on China is considered by Barrett and Whyte to be an anomalous example of challenge, which explains that foreign economic penetration has led to slower economic growth and increased inequality. Since the early 1950s, Taiwan has received significant foreign aid and investment. Taiwan also has one of the highest sustained growth rates in the world, and income inequality has declined substantially. In the case of Taiwan, a variety of factors, including the nature of the Japanese colonial experience, the emphasis on labor-intensive enterprises, and

the lack of an entrenched bourgeoisie-created a miracle which rapid growth and equality were possible.²⁷

In terms of economic development, Taiwan is dependent on aid, investment, and trade from foreign economic forces, and the mechanism of the deterioration of the development of third-world countries referred to in the traditional dependence theory has never appeared in Taiwan's development.²⁸ As mentioned by Egyptian scholar Samir Amin, Taiwan has the world's number one semiconductor industry technology due to its rich history and continuous progress in national economic policies, including the Ten Major Construction Projects, export orientation, and USA Foreign Economic Assistance, etc. There was a leading industry in Taiwan that was not controlled by China. From an economic point of view, export-orientation on a growing large economy will not lead to the possibility of being marginalized; however, given the political tension between China and Taiwan, the increase in export dependence will become a burden for Taiwan.²⁹

²⁷ Richard E. Barrett and Martin King Whyte, "Dependency Theory and Taiwan: Analysis of a Deviant Case," *American Journal of Sociology* 87, no. 5 (March 1982): 1064–89, <https://doi.org/10.1086/227555>.

²⁸ 吳典附, "由發展理論檢視台灣經濟發展經驗(1950-2006)" (2007).

²⁹ Jenn-haw Tu, "Wil Exports Depending on China 'Marginalize' Taiwan," *Graduate Institute of National Development* 3, no. 11 (December 2003): 37–71.

To sum up, because of Taiwan’s history and democratic political system, the proposed dependency theory by Cardoso and Faletto is more in line with Taiwan's development status and such a dependence can coexist and be combined.

Taiwan Inland Aquaculture’s dependence on mainland China

This study uses Grouper and Threadfins as the main research fish species. Taiwanese top five exported aquatic products to China are Squid, Skipjack and Bonito, Grouper, Threadfins and Saury. Only Grouper, Threadfins for Inland Aquaculture.

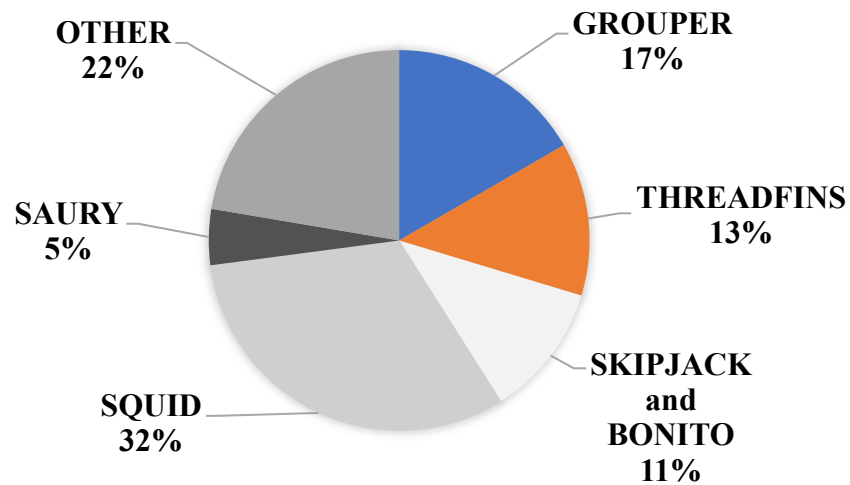


Figure 1 The proportion of output value of aquatic products exported to China in 2022

(Source: Taiwan Fisheries Agency, Council of Agriculture, Executive Yuan, 2022)

The dependence is extremely high and the main mode of transportation of these fish is live fish transportation, and China is the main and fastest pipeline. From the

two tables below, two trends can be found. First, the industry is highly dependent on China, and second, Hong Kong will serve as a pipeline after they are banned.

Table 3 The export volume of Grouper in a decade

Grouper Export Quantity in a decade			Unit: Kg
Year	Total	China	Hongkong
2022	6,038,078	3,016,200	2,770,775
2021	6,681,431	6,121,253	514,095
2020	6,747,742	5,419,180	1,243,909
2019	14,056,522	9,979,030	3,983,356
2018	16,183,439	12,189,705	3,891,011
2017	14,022,881	10,074,794	3,774,060
2016	13,722,220	10,357,327	3,209,692
2015	17,094,674	13,527,770	3,504,230
2014	18,033,658	14,365,316	3,609,690
2013	17,769,257	14,245,481	3,435,721

(Source: Taiwan Fisheries Agency, Council of Agriculture, Executive Yuan, 2012- 2022)

Table 4 The export volume of Threadfins in a decade

Threadfins Export Quantity in a decade			Unit: Kg
Year	Total	China	Hongkong
2022	8,140,893	5,435,760	2,667,524
2021	9,519,536	7,028,734	2,460,997
2020	9,489,319	6,918,399	2,531,722
2019	9,690,465	7,262,424	2,372,865
2018	8,113,532	6,044,550	2,023,175
2017	7,068,790	5,054,132	1,958,392
2016	6,644,360	4,979,233	1,619,004
2015	4,822,451	3,395,916	1,387,011
2014	4,533,671	3,117,864	1,380,817

2013	4,291,642	2,932,452	1,320,160
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(Source: Taiwan Fisheries Agency, Council of Agriculture, Executive Yuan, 2012- 2022)

According to Xu Chengyu's report mentioned, Taiwan's originally stable domestic supply chain has been repeatedly affected by "political exports". "The impact of fluctuations has led to domestic price instability and even collapse. For example, due to production costs, grouper farming in Taiwan was originally not competitive for export. However, political intervention led to the domestic aquaculture industry cultivating groupers in large quantities to earn cross-strait dividends. However, when the political situation changed, overproduction could not go smoothly. For export, it can only be sold back to Taiwan to impact the domestic market.³⁰

³⁰ 林彥宏, 余祁暉, and 林志遠, “養殖漁水產智農聯盟發展模式分析,” *智慧精準農業* 2021, no. NO.63 (2021): 55–62.

METHODOLOGY

Research Design

The research adopts the qualitative method as the main design. The author uses in-depth interviews and official documents as the instrument of information collection. The primary theory in this research applied dependency theory to exam the Taiwanese aquaculture fishery dependency on China and explore the difficulties and challenges encountered by the Taiwanese aquaculture industry due to China's implementation of NTBs. So, under this strategy, the research framework is listed as bellowing:

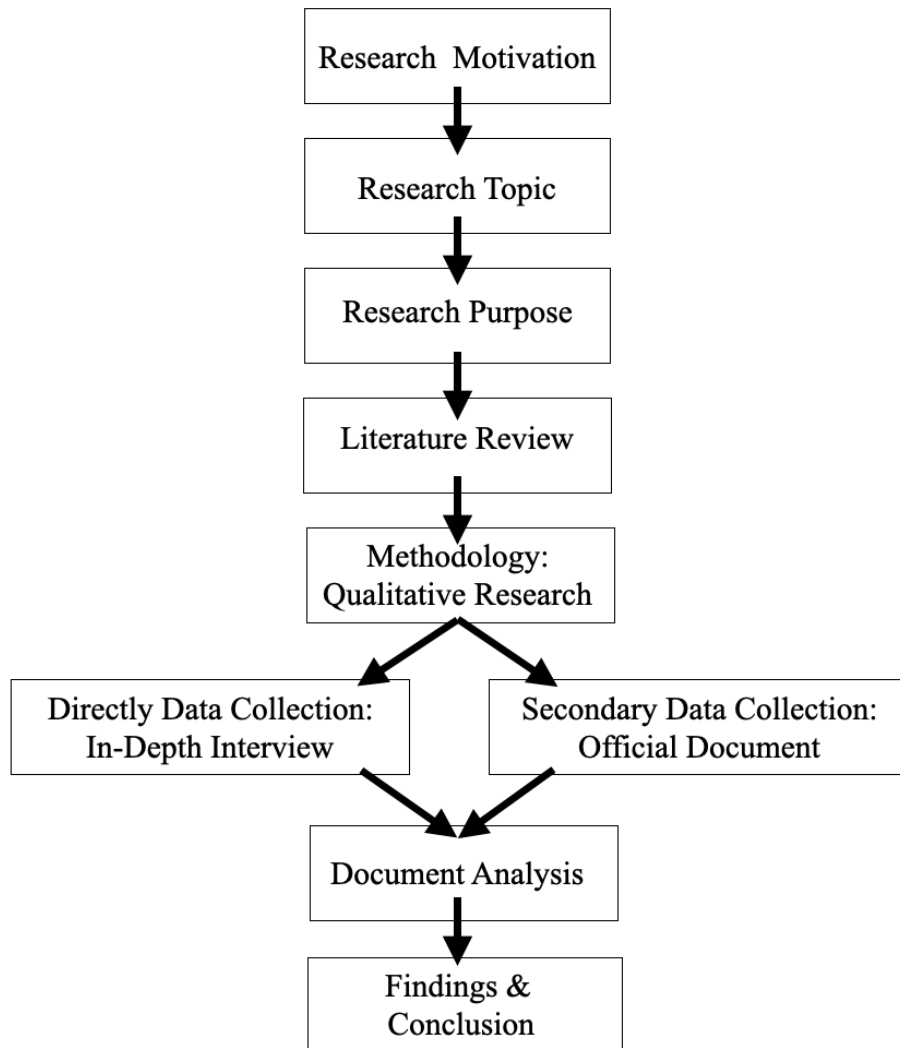


Figure 2 Research Design

The study uses semi-structured interviews as the main methods in terms of data collection. The purpose of the research is not only to understand the plight of fishermen but also to evaluate the effectiveness of government policies, so official government statistics and documents are needed to be examined before the interview. The aim of this study is to find out the suggestions from practitioners in the finishing industry, instead of official data that are revealed by the public sector. Therefore, the

interviews are designed to focus on the interviewees that served in fishing industry through the interviews, the researcher can extract the research finding directly.

Qualitative Methodology: In-depth interview

The researcher chooses a semi-structured interview and purposive sampling. First of all, the semi-structured interview method is suitable for fishermen that dislike questionnaires. Interview questions and sequences will be established before the interview begins. Questions can be added according to the situation during the interview, and it allows information collection more room with advancement. Then, purposive interviewees are directly selected from a group of subgroups that should adequately represent the parent population. The research target is determined based on subjective judgment.

The interviews were presented anonymously because the answers involved the political leanings of the interviewees, and they did not agree to reveal their names during the research. Based on the principles of the research work, the protection should be taken into consideration.

The demography variables that were applied when selecting interviewees were shown as below (See Table 5). The first interviewee is an associate researcher from the public sector of the Taiwan Fisheries Agency. Provide information on governmental policies and effectiveness for this research. The second interviewee is

an aquaculture expert, engaged in this industry for 18 years. A lot of reporters interviewed her. She is served as a expertise. Finally, the third interviewee is the chairperson of the Kaohsiung City Aquaculture and Fisheries Development Association. He is a fisherman. As the chairperson has enough understanding of the aquaculture environment. They are the people who can properly address the aquaculture industry's difficulties and the impact of public policies.

Table 5 Demography of Interviewees

No.	Date of interview	Title	Seniority	Gender	Breeding species
1	2 nd October	Associate researcher, Fisheries Research Institute, MOA	18	Male	-
2	11 th October	Leader, Yong-An Distric Aquaculture Production and Marketing Group	23	Female	Epinephelus fuscoguttatus/ Epinephelus lanceolatus
3	11 th October	Chairperson, Kaohsiung City Aquaculture and Fisheries Development Association	68	Male	Epinephelus fuscoguttatus/ Epinephelus lanceolatus

Interview questions were designed in three parts: ‘

1. The impact of China’s non-tariff barriers on Taiwan’s aquaculture industry,

2. 'The efficiency of the Taiwan government's policies.' and
3. 'the situation of Taiwan aquaculture Industry.' (See Table 6.) Before the interview began, the researcher gave the interviewees guideline with explanation to ensure that correct and sufficient information was obtained.

Table 6 Interview Questions

Part One: The impact of China's non-tariff barriers on Taiwan's aquaculture industry	
1	Do you think the export of aquaculture to the other side in the past ten years has been helpful to the aquaculture industry?
2	Do you agree with individual countries implementing non-tariff barrier policies?
3	Does the political relationship between Taiwan and China have a positive or negative impact on aquaculture? Why?
4	What practical difficulties have China's trade measures against Taiwan's aquaculture industry caused?
Part 2: The efficiency of the Taiwan government's policies.	
1	Now that you know that China has implemented non-tariff barrier policies, what measures have you taken to face the upcoming economic challenges?
2	What assistance policies from the central government have you heard of or applied for?
3	Continuing from the previous question, how do you think the policy actually helps aquaculture farmers?
4	Do you think the policies proposed by the government have effectively solved the problem?
5	From this experience, what changes do you think Taiwan's aquaculture industry should make to cope with the impact of mainland China's policies in the future?
Part Three: The situation of Taiwan aquaculture Industry	

1	Do you think Taiwan's aquaculture industry is internationally competitive?
2	What are the advantages of Taiwan's aquaculture industry?
3	What are the disadvantages of Taiwan's aquaculture industry?
4	In addition to mainland China, what markets should Taiwan develop for its aquaculture industry?
5	How should the Taiwanese government assist the aquaculture industry?

After the interview, the interviewee was again confirmed to be correct and authorized to use the information.

Qualitative Methodology: Official Document

In addition to interview data, the author also collected official government information from China and Taiwan. Target the Grouper's documents to see the exact impact on shipping volumes. And observe the results of official information and interviews.

DATA ANALYSIS

This chapter is organized into five parts through the data of three interviewees:

"Political factors, the impact of the aquaculture industry, transportation recovery, transformation of fishermen, and policy effectiveness." Finally, it responds to each research question.

Table 7 Opinions of Interviewee

No.	Title	Seniority	Breeding species
1	Associate researcher, Fisheries Research Institute, MOA	18	-
2	Leader, Yong-An Distric Aquaculture Production and Marketing Group	23	Epinephelus fuscoguttatus/ Epinephelus lanceolatus
3	Chairperson, Kaohsiung City Aquaculture and Fisheries Development Association	68	Epinephelus fuscoguttatus/ Epinephelus lanceolatus

Political factors

All interviewees believe that the political relationship between Taiwan and China affects industrial development. Geographically, China is a very close sales channel, and most farmed fish, such as groupers and threadfins, are exported to the mainland. A deteriorating political environment led to economic control by a large country, China. As mentioned by interviewees A and B.

“Because some major economies are under political control, Taiwan market will suffer from unsalable goods and fishermen will suffer losses in the short term.”- Interviewee A

“The political impact is definitely bad. The first point is that China is a very close sales channel geographically. Then the second point is that China’s consumer market is huge in terms of population size.”- Interviewee B

In addition, Interviewee B also made suggestions. She believes that healthy communication should be maintained between the two countries and also hopes no political problems. In contrast, interviewee C believes that bad political relations come from the fact that China is a country with an authoritarian system.

“I think the more important thing is good-faith communication between the two countries, just focusing on the dialogue without interference from other factors. there should be no political issues.”- Interviewee B

“Due to COVID-19, entry is prohibited for three years, and political relations are relatively negative. If we were in a democratic country, we would not have this problem.”- Interviewee C

Most of these problems arise from the harsh international political environment. However, due to geographical relations, China will be Taiwanese fishermen's most beneficial sales channel. They hope that the government can properly handle this complicated relationship.

The impact of the aquaculture industry

The interview content shows that the impact on fishermen is divided into four factors: fishing farm scale, distributor issues, transportation, price, and drug testing issues.

The first is the issue of fishing farm scale. Fish must be allocated according to their size. Each fisherman has a different number of fish farms. Large ones may have seven to eight fish farms or even more, while small ones may only have one or two. The fish must always be kept in fish farms because non-tariff barriers prevent fish from being sold. Then, the feeding costs also increase.

“The greater the gap between the rich and the poor. If you have the capital, you can raise a bigger fish, but not for the small fish farm. They can't afford the water, electricity, and feeding costs. What should they do if they only have two fishponds and grow up to the point where they allocate the fish? This is limited.”- Interviewee C

Next, there are some problems with the distributors. They play an important role in assisting fishermen in selling their fish. It also affects future market prices. As mentioned by interviewee B:

“Export sales have requirements on size. Fishermen will sell to distributors if the size is over their export requirements. There is a domestic market, but the price will fall.”- Interviewee B

Therefore, if the smaller fish farm is eventually forced to be sold to the distributor, it will earn lower profits. Interviewee B also mentioned that government subsidies are given to distributors, not fishermen.

“There was also a situation of unsalable seven years ago, and the government said it would distributors with 10 dollars. Before I caught the fish, the price was 90 yuan, but they caught 80 yuan. Then, I had to register and sort. Domestic demand is 1,500 kilograms at once, and export sales are 4,000 kilograms. This was the case last year (2022). I didn’t register at all. I had a total of 4,800 kilograms. When will I catch it all?”- Interviewee B

She also mentioned the factors why the price of fish in Taiwanese market is high.

“Production and sales are completely out of balance in domestic. Distributors control the sales. For example, they bought milkfish for 52NTD, and they went to the fish market(wholesalers) and sold it for 67 NTD. Ultimately, the street vendor for at least 100 yuan. Their profit was too high.”- Interviewee B

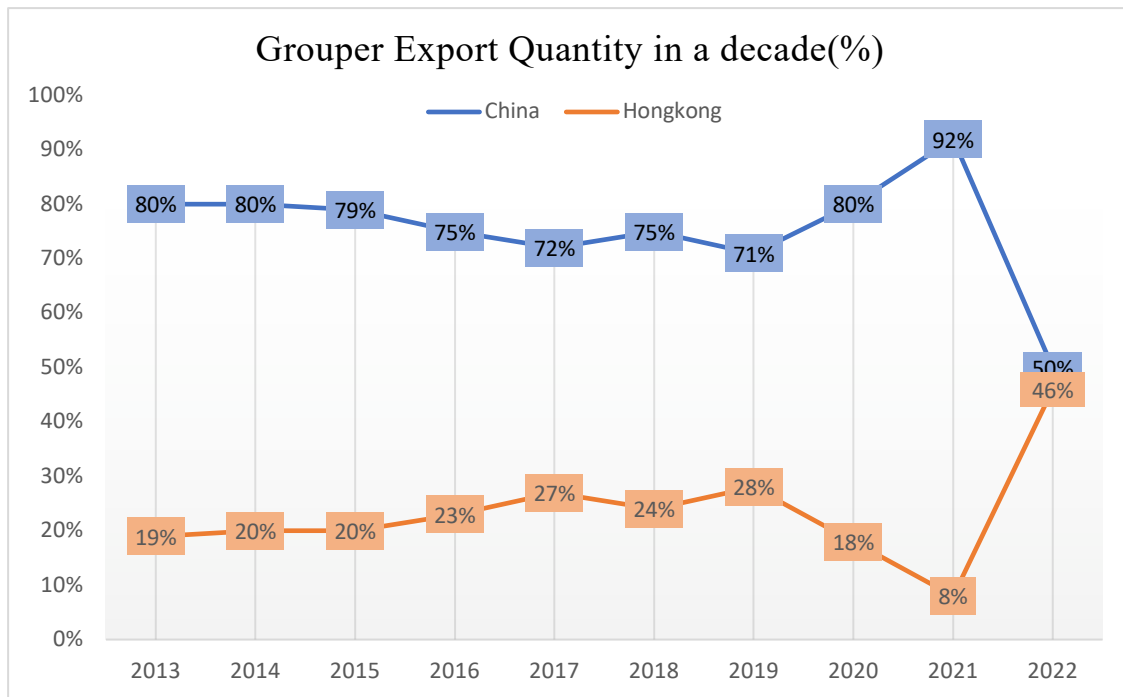
According to the issue of distributors, it can be found that international political influence and economic policies will affect a series of butterfly effects, which will eventually be reflected in fishermen (primary workers). There have always been incidents of distributors making huge profits. Next, the government purchases from fishermen to alleviate the problem but actually subsidizes distributors, and the demand cannot meet the requirements of large-scale fish farms. It will cause many risks and costs in this process for primary workers.

The third part is “transportation”. It decided where the fish go. Before China implemented non-tariff barriers, most fish were exported to China. After the non-tariff barriers, interviewee C mentioned the fish are all transported to Hong Kong, so the two fishermen (interviewee B and C) explained that the ban on direct export to China has no impact on them because there is still a sales channel in Hong Kong.

“Because we have Hong Kong to export the fish, it has little impact on fishermen. It's just a bit far away. Hope direct transportation can be restored.”- Interviewee C

This researcher calculated the volume ratio of Taiwanese Groupers and Threadfins exported to Mainland China and Hong Kong in the past ten years. As can be seen in the table below, Grouper's exports to China will obviously drop by half in 2022, while Hong Kong will increase by 38% compared to last year, just as interviewee C said.

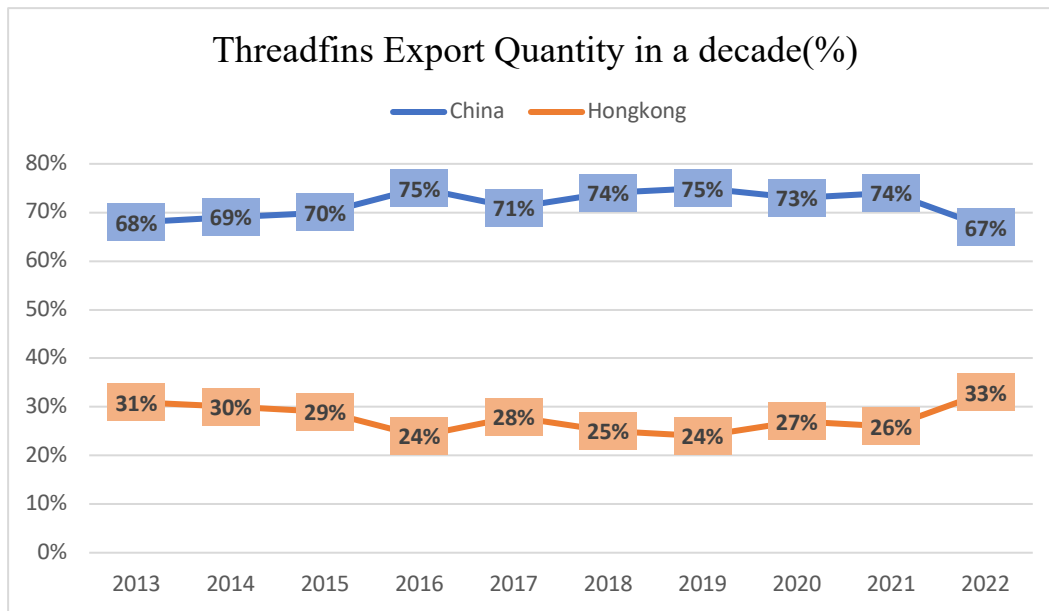
Table 8 Grouper Export Quantity in a Decade



(Source: Taiwan Fisheries Agency, Council of Agriculture, Executive Yuan, 2012- 2022)

Threadfins, the second-largest aquaculture fish exported to China, will slightly shift in export regions in 2022 (See Table). It is less obvious because China implemented non-tariff barriers against Threadfins in December 2022.

Table 9 Threadfins Export Quantity in a Decade



(Source: Taiwan Fisheries Agency, Council of Agriculture, Executive Yuan, 2012- 2022)

Next, observe official data via official data that there is a significant difference in the price of shipping Groupers to China and Hong Kong. According to statistics from the Hong Kong government’s Fish Marketing Organization in 2022, the average price fell at NT\$238/kg, while the Chinese average falls at NT\$289/kg, so fishermen prefer to import directly to China to shorten transportation costs.

Finally, there is the issue of drug testing, which involves Chinese actions to impose non-tariff barriers on Taiwanese aquaculture. According to interviewee B, the Marine Bureau in Taiwan conducts regular spot inspections of fish farms and carries outnumbering.

“Our government has guided us to get a certification for exporting to foreign countries and to mainland China. In fact, we have both. This is the first point,

and then the second point. Each of our fishponds has a number, and then the Marine Bureau will random inspections from time to time.”- Interviewee B

From this point of view, we can learn that the Taiwanese government is very strict in inspecting exported fish. Then, interviewee C said he

“When China detected banned drugs, my fish happened to be in the batch that was sent there. The Marine Bureau and other authorities immediately sent people to check. They caught two fish from my pond. They also dug up the soil and tested the water quality. The results came out as authorized.”- Interviewee C

So, why did China fail the inspection? What's the motivation? It is a mystery to the Taiwan government, even unreasonable, so it is recognized as a "non-tariff barrier" by the Taiwan government.

Policy effectiveness

The Taiwanese government has formulated many policies to address the impact of non-tariff barriers on fishermen. The interview results for this study are divided into three categories: machinery subsidies, fishermen's transformation, and expansion of domestic sales channels.

First, the government provides machinery subsidies, which is helpful to fishermen because, in the process of unsalable catches, more feeding costs have to be invested, including the wear and tear of machinery. Very helpful for small fish farms.

“Now the government has machinery subsidy every year, cold chain, etc. All grouper fishermen need water trucks. The water trucks run 24 hours a day and consume a lot of wear and tear, which is helpful.”- Interviewee C

The government also guides fishermen to transfer feeding different fish species.

As a public service unit, interviewee A teaches fishermen the fish farming technology and provides them with other assistance. But the process was not so smooth, and fishermen had to spend much time getting familiar with the new breeding environment.

“Provide some other alternatives. Because the grouper will become unsalable in the short term and the price is not good, we have to find some alternatives for fishermen to raise like this.”- Interviewee A

The last thing to mention is to expand domestic sales channels. However, the sudden large number of fish caught cannot be consumed immediately in the domestic market. The government uses it as school lunches and processes it into products for simpler cooking. Despite this, all three interviewees believe that this can only solve ‘short-term’ problems and will face more difficulties in the long term. And the biggest profiteers in the incident were only distributors.

“Not every kind of fish can be processed into fish steaks. For example, the short tail of Grouper and the big belly make it difficult to make fish steaks.”- Interviewee C

However, some interviewees pointed out that not all fish are suitable for processing into fish fillets. As Xu Chengyu's report mentioned, some fish thrive under political influence, such as the grouper industry.

Overall, the government's help to fishermen is really limited. The fishermen hope that government officials can actually visit their situation and listen to their voices.

CONCLUSION

The impact of non-tariff barriers is a problem that Taiwan will continue to face in the future and has become more serious in recent years. The author of this study puts forward the following points.

First of all, for political reasons, it can be found that the prosperity of aquaculture fisheries is due to China's continuous purchases. Depending on the ruling party in Taiwan, the Chinese government will adopt different policies, and the industry in this study is the grouper farming industry. As an industry that thrives on political games, the government and fishermen should realize that it will not be a sustainable advantage. As a buyer, the author believes that China has the right to terminate the purchase because there is only a weak ECFA as a link in this relationship, and it is not a clear international contract.

Secondly, the author believes that China's non-tariff barriers did not completely block exports, and fishermen were instead transported to Hong Kong. There will be such a big impact and reaction because the profit earned is less than exporting it directly to China, which Taiwan cannot accept. But as the general environment changes, the industry must also keep up with the changes of the times and improve

itself instead of just raising fish and waiting for others to buy them. This will be a big crisis.

Finally, fishermen believe that the biggest beneficiary of the subsidy policy is the distributor, which reflects the shortcomings of Taiwan's policy system. And these policies are only effective in the short term. After several incidents, Taiwan should develop a more rigorous approach. Instead of improvising every time it encounters an incident, Taiwan will become a passive party and be at the mercy of others.

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APPENDIX A – Interview Guide

訪談同意書

親愛的受訪者您好：

非常感謝您撥空協助參與此研究，本研究主題為「中國實施非關稅壁壘對台灣水產養殖業的影響」，研究目的旨在發現本土水產養殖業者受到非關稅壁壘的實際影響以及評估台灣政府制定對應政策之效益。

訪談過程中如有任何問題，可即時向研究員反應。受訪者將會以匿名的方式呈現於研究中且個資將會進行保密，所有訪談資料僅作為學術研究使用，再次感謝您的合作，期望收到您寶貴的意見。

文藻外語大學國際事務系

指導教授：許淮之 教授

學生：張芳嘉 敬上

您是否同意本研究進行訪談，並在訪談過程中錄音或錄影？

同意

不同意

受訪者簽章：_____

中華民國 年 月 日

Code: _____ (由研究員填寫)

受訪者基本資料

本研究收集之個人基本資料，將作為研究參考數據使用，採編碼呈現，不會透露任何個資訊息。本研究將會負起保密的責任，請受訪者放心填答。

1. 姓名：_____
2. 性別： 生理 男 女
3. 年齡：_____歲
4. 居住地：_____縣 / 市 _____鄉 / 鎮 / 市 / 區
5. 最高教育程度：
國小 國中 高中（職） 大專院校 研究所以上
6. 服務單位：_____
7. 職稱：_____
8. 從業資歷：_____年 / 月
9. 養殖（加工）魚種：_____

訪談綱要

本訪談內容分為三個部分，旨在發現本土水產養殖業者受到非關稅壁壘的實際影響以及評估台灣政府制定對應政策之效益，最後部分將請您針對台灣水產養殖產業進行詳細敘述。過程中如對題目有疑慮歡迎隨時提出，訪談開始前，請閱覽下方「非關稅壁壘」的定義：

➤ 非關稅壁壘 Non-tariff Barriers, NTBs

根據聯合國貿易和發展會議（UNCTAD）定義，非關稅措施(NTMs)指在普通關稅以外的政策措施，它可能透過改變貿易數量、價格或兩者都有，對國際貿易產生經濟影響。然而當今天非關稅措施對國際間的貿易造成負面影響則被視為非關稅壁壘。

第一部分：中國非關稅壁壘行為對台灣水產養殖產業的影響

1. 您認為近十年水產養殖業出口到對岸對水產養殖業是有幫助的嗎？
2. 您同意單獨國家實施非關稅壁壘政策嗎？
3. 台灣與中國之間的政治關係對水產養殖是否造成正面或者負面的影響？為什麼？
4. 中國對臺灣水產養殖業實施的貿易措施造成了什麼樣的實際困境？

第二部分：台灣政府針對中國非關稅壁壘行為所制訂政策之實際效益

1. 當下知道中國實施非關稅壁壘政策時，有做哪些措施來面對即將會遇到的經濟挑戰？
2. 曾聽過或申請過哪些中央政府的協助政策？
3. 承上題，您認為政策對水產養殖戶的實際幫助如何？
4. 您認為政府提出的政策是否有效解決了問題？
5. 從這次的經驗當中，認為台灣水產養殖業應該要做出什麼改變來應對未來中國大陸的政策影響？

第三部分：台灣水產養殖業

1. 您認為台灣水產養殖業是否具有國際競爭力？
2. 台灣水產養殖業的優勢為何？
3. 台灣水產養殖業的劣勢為何？
4. 水產養殖業除了中國大陸，台灣應該開發哪些市場？
5. 台灣政府應該如何協助水產養殖業？

APPENDIX B – Interview Transcript

Interviewee: No.1

職業/職稱：農業部水產試驗所副研究員

訪談日期：2023 年 10 月 2 日

訪談方式：電話訪談

訪談時間：13 分鐘

第一部分：中國非關稅壁壘行為對台灣水產養殖產業的影響

5. 您認為近十年水產養殖業出口到對岸對水產養殖業是有幫助的嗎？
有，短期有，但是長期沒有。
6. 您同意單獨國家實施非關稅壁壘政策嗎？
不同意。
7. 台灣與中國之間的政治關係對水產養殖是否造成正面或者負面的影響？為什麼？
當然是負面的，因為主要的一些經濟都被政治控制住了。
8. 中國對臺灣水產養殖業實施的貿易措施造成了什麼樣的實際困境？
主要就是如果他如果把你關了，短期內會造成台灣的滯銷，會造成漁民的損失。

第二部分：台灣政府針對中國非關稅壁壘行為所制訂政策之實際效益

6. 當下知道中國實施非關稅壁壘政策時，有做哪些措施來面對即將會遇到的經濟挑戰？
依我的工作來說，提供一些其他的替代性方案，就是替代魚種，讓漁民去養，因為短期內向石斑就會滯銷價格不好所以就找一些替代的讓漁民去養這樣子。
7. 曾聽過或申請過哪些中央政府的協助政策？
有啊，就叫大家吃石斑，學校吃石斑，就是促銷方案啦。
8. 承上題，您認為政策對水產養殖戶的實際幫助如何？
短期內當然就是滯銷的部分是可以解決，增加魚產品的通路，讓學校也可以打進去其他部分平常無法進去都可以進去，把這些庫存去化。
9. 您認為政府提出的政策是否有效解決了問題？
當然不是，短期可以解決啦，長期的話漁民還是要改變他的養殖方式，找替代魚種來養，因為竟然這個水產品已經不會賺錢了，他當然要找其他的東西來養。

10. 從這次的經驗當中，認為台灣水產養殖業應該要做出什麼改變來應對未來中國大陸的政策影響？

第一個就是國際化，不要只依靠單一國家，第二個就是要加強提升我們的品質，讓我們跟中國的市場需求有不同的區隔。

第三部分：台灣水產養殖業

6. 您認為台灣水產養殖業是否具有國際競爭力？

有啊！

7. 台灣水產養殖業的優勢為何？

優勢是台灣的繁殖業很強種苗的繁殖業很強可以去推廣，像口湖那邊的事做貝類繁殖中心可以推廣出去，這個是其他國家沒有辦法做到的。

8. 台灣水產養殖業的劣勢為何？

我們台灣太小了，我們量太多的話會滯銷賣不出區，所以我們要更大的市場，要擴展國際的市場。

9. 水產養殖業除了中國大陸，台灣應該開發哪些市場？

第一個就是像我們這個亞熱帶、溫帶的部分，像東南亞，或者一些澳洲、加拿大、美國這些都可以，只要有適合我們這邊做的都可以，甚至是沙烏地、中東啊非洲的。

10. 台灣政府應該如何協助水產養殖業？

看他們需求是什麼，第一個就是我們的一些魚機具幫忙補助，第二個就是一些，他如果需要蓋繁殖場的話，政府也要協助他因為這算高成本，提供低利貸款或者是部分的補貼來協助他這樣子。

Interviewee: No.2

職業/職稱：產銷班班長 Leader of Aquaculture Production and Marketing Group

飼養魚種：龍虎斑/龍膽石斑

訪談日期：2023 年 10 月 11 日

訪談方式：受訪者家中

訪談時間：47 分鐘

第一部分：中國非關稅壁壘行為對台灣水產養殖產業的影響

1. 您認為近十年水產養殖業出口到對岸對水產養殖業是有幫助的嗎？

絕對是有幫助的。產跟銷是非常重要的，一個生產再一個銷售的過程是非常重要的，我們政府不是都在講碳里程碑嗎？那也是有助的。

2. 您同意單獨國家實施非關稅壁壘政策嗎？

這樣當然不好，但有些事情檯面上我們不知道。

3. 台灣與中國之間的政治關係對水產養殖是否造成正面或者負面的影響？為什麼？

絕對是不好的，基本在地理上一個很近距離的銷售管道第一點，然後第二點，在消費能力的人口數的話消費市場大，哪個國家不去找消費市場大的去，那是絕對的嘛，因為你在生產最重要的就是這個樣子。

4. 中國對臺灣水產養殖業實施的貿易措施造成了什麼樣的實際困境？

如果是因為禁止的話對整體是有影響啦，問題就是說，我們依該是知道他們是做什麼樣的檢測，然後我是覺得雙方的溝通很重要，但是我覺得更重要的就是彼此雙方的一種善意溝通，很簡單一個道理，我要跟你做生意，檯面上講得很好我要跟你溝通，私底下有在那邊怎麼樣怎麼樣，其他檯面下的動作，你想你要跟我買東西你要讓我攥這個錢嗎？肯定是不要的，我們所謂善意溝通就是，我們真的是面對面，跟任何人沒有其他的小動作，只是兩者之間，我覺得這才是最重要的誠意溝通，間單說就是不要有政治問題就對了。那對您所養殖的魚有帶來什麼樣的影響嗎？沒有沒有沒有，其實我們都是直接活魚運班（石斑），現在其實還有在做，他其實沒有完全禁止，他們對我們台灣這邊生產的於是很有信心，因為我們的人口少，但是我們吃魚就會去注重管理，然後本身因為我們長久以來，本來就不善於用藥，但是你如說我們可以想為什麼大陸他們那麼會用藥，因為他們產量大、銷售多，一下就出去，當然聽說他們政府也是很嚴格啦，如果說有一個養殖場他有跟你補助做的話，你如果一怎麼樣不行的話就整個給你弄掉了。他們就是禁的話是去年的六月到十二月。其實那時候禁的時候我是覺得在語言上雙方不是一個很良性

溝通，因為怎麼講呢，我也要講到我們自己，那時候你們常看電視嘛，不是有街訪嗎？基本上齣，對要讓你知道一下，我們輸外政府是，像高科大那個鄭安倉這次有開的課，就是輔導我們去做一個輸外、輸大陸認證，其實我們都有了，這是第一點，然後第二點，我們的每一池魚塭，都有編號，然後海洋局他是不定時抽檢，然後現在，出事了對不對，有藥檢，整個跟你停止，他就是說，或許他們要釐清某一種狀況還是怎麼樣，我是不太清楚，但是藥檢其實也無可厚非啦，但是我們這邊就是公佈說大陸他藥檢，然後我們政府自己講的喔，有 2000 口魚塭只有 400 多口是合法的，你認為正確的嗎？所以說我看到的每一個人我都跟他去講這樣的一個事情，尤其是年輕人，你們完全不知道，所以說我們台灣得前途堪憂，今天講的這兩條新聞，他怎麼講你知道嗎，政府說 2000 口魚池只有 400 多口合法，我剛剛就說魚池有編號嘛，是不是政府都知道，然後果剛剛不是說海洋局他有不定期定檢，那你說他合不合法，他在編類裡面的而且我們這裡是養殖生產區絕對是合法是不是，藥檢沒過當然是勸導然後再來開罰，你說合不合格，絕對合格！他說的數字都沒錯，但用詞錯誤，應該說有輸外認證的有 400 多其他還在輔導中，所謂合法魚塭與不合法魚塭差在哪裡，不合法魚塭在農地，種植地方他挖起來，他沒有水權狀，你沒有水的來源，你抽地下水，還是在山上就挖一挖，弄山泉水養，或許是可以要看政府怎麼認定，所謂的合法跟不合法是這個樣子，然後你抽地下水，現在政府地下井要編類嘛，做什麼用途，這是不是政府應該做的，說到這個 2000 口裡面只有 400 多口合法，你看街訪那些問敢不敢吃他們就說那個是非法的，都是毒魚，我們看了不傷心嗎？他把合法跟非法從哪去引述來？從一個不在工業區在農地上作工廠那是非法的，你的在工業區是合法的，政府不去查非法，為什不去查那些不是在養殖區，不是可以取用海水？政策有問題而且引導民眾思想不對。

第二部分：台灣政府針對中國非關稅壁壘行為所制訂政策之實際效益

1. 當下知道中國實施非關稅壁壘政策時，有做哪些措施來面對即將會遇到的經濟挑戰？

（沒有）我跟你講，我們台灣盤商很不好，你這邊禁了然後這邊就故意壓下價格，但這是一個供需原則。

2. 曾聽過或申請過哪些中央政府的協助政策？

斑斑吃石斑，其實是吃龍虎斑，吃到最後沒有龍虎斑，就是吳郭魚吃水果了，然後陳吉仲叫魚快快長大，這就是魚一直抓，他本身就有成長期，會出現斷層。當然政府有措施也不錯啦。

3. 承上題，您認為政策對水產養殖戶的實際幫助如何？

你說好不好見仁見智，你每一次抓都會有一些漏網之魚，檔最後其實

有一些是比較大的，外銷有時候抓到一公斤或一斤半就不抓了，因為他就是要這個尺寸，就會有一些大的叫盤商抓走，國內就有這個市場，但通常這個情況下有大的就分池或叫盤商抓但價格就跌了，有一年也是滯銷大概七、八年前，那天政府說補助盤商 10 塊，我那次抓之前是 90 一補助反而他們抓 80，在韓國瑜那時候叫漁會來跟我們買，但出來買要排序，排序當然可以做手腳，而且一次抓 1500 斤，外銷一次就 3000 多 4000 斤，所以第二次也就是去年他就這樣抓，我根本登記都不登記，我一個功能 1200（斤），四個就 4800 了誒，這樣抓我要抓到什麼時候。去年政府也有補助盤商跟冷鏈嗎？甘我們什麼關係。我們不需要補助，你只要把東西銷出去就好了，問題是正好獲利那些人。

4. 您認為政府提出的政策是否有效解決了問題？

國內市場盤商都抓 3 斤以上，比起外銷只要一公斤或一斤半，所以把魚養大這段期間除了要花費飼料錢還有風險。就大環境來說您覺得對於你們這些一線的漁民是有幫助的嗎？沒有，就盤商跟冷鏈。

5. 從這次的經驗當中，認為台灣水產養殖業應該要做出什麼改變來應對未來中國大陸的政策影響？

我覺得中國會擋是合理的，價格是供需而定，但是政府只要有對立，就會用商業行為去打壓你，因為他不可能打砲彈。如果是我我也會這樣做，你來賺我的錢，結果你又聯合別人來杯格我，所以說農民最倒霉了。

第三部分：台灣水產養殖業

1. 您認為台灣水產養殖業是否具有國際競爭力？

絕對是有啊！我們不說什麼競不競爭力啦，有沒有競爭力是看你政府在當地著力多少人家知不知道你這個東西，競爭力不是我們說的算，我們的責任是把我們的魚養好，其實國際競爭力就上升到比較大的範圍了，每一個國家吃魚的習慣都不一樣，像美國人他不吃石斑，他們覺得是有毒，怎麼可能大量進到美國，我們競爭力如果要比較優勢，就是外銷到大陸，第一個你想喔，我們魚成本抓起來直接出去多省事，然後你要養大的話當中多少的人工成本，第二點，不是每一種魚都可以加工成魚排，像龍虎斑的尾巴短短的肚子很大，這能夠做魚排嗎？除非你很大很大，可以做的是鱸魚，他是平平的一塊肉，是魚種有沒有競爭力啦。

2. 台灣水產養殖業的優勢為何？

像上面提到的品質好。

3. 台灣水產養殖業的劣勢為何？

所謂劣勢依我們國內來講，都是產銷完全失衡啊，有再好的然後都是

盤商在掌控銷售，譬如說虱目魚，很多做光電的大面積已經停止（養殖）了，照理說魚應該是要到一個比較高的價位，不要說 70（一斤）你 50 幾將近 60 也是要的，要讓漁民有錢賺，結果現在池邊交易 50 塊錢，會壓價格，因為是含有進口虱目魚，在我們這邊抓 52，他到市場每一斤賣到 67 塊，還算是中盤商，他是從魚塢抓到漁貨市場去賣，攤販去那邊買他是不是還要賺它起碼賣 100 塊，所以說我們台灣於價格那麼高是因為這種大盤商、中盤商、跟小盤商，他的利益太高了。

4. 水產養殖業除了中國大陸，台灣應該開發哪些市場？

依我們養殖的魚種都不需要啦，我們本身沒有開發能力，我們台灣能夠大量外銷的只有鱸魚，北歐那些就都吃鮭魚了，因為吃東西的習觀所以要外銷很難，其實台灣現在的產量一直在萎縮，石斑的產量還不到大陸的十分之一，他為什麼跟我們買，因為大家都是中國人他們的意思就是這個樣子，冬天的時候他們那邊沒有魚。

5. 台灣政府應該如何協助水產養殖業？

就像我上面提到的那些問題，要如何安定老百姓、世界和平都是政府要做的事。政策方面都沒有實質性的幫助，都補著到盤商冷鏈業者。我是覺得不要太政治化很簡單。

Interviewee: No.3

職業/職稱：高雄市養殖協會理事長

飼養魚種：龍虎斑/龍膽

訪談日期：2023 年 10 月 11 日

訪談方式：協會辦公室進行訪談

訪談時間：26 分鐘

第一部分：中國非關稅壁壘行為對台灣水產養殖產業的影響

1. 您認為近十年水產養殖業出口到對岸對水產養殖業是有幫助的嗎？

我們台灣養那麼多魚，除了大陸和我們較臨近，大陸沿海較近而且都要吃活魚，大陸生產的，他國內需求量不夠，他們自己現在海南島也很少，因為要變經濟區，所以他們會用台灣的魚，最近就是牽涉到政治問題，他如果是直接出口到對岸，對我們的漁民利益非常大，因為這樣價格就可以拉高，如果從香港轉運到大陸，中間的費用會被大陸人賺走。

2. 您同意單獨國家實施非關稅壁壘政策嗎？

不同意，這個行為就是共產國家隨時想切斷就切斷，都沒有協商就直接停。

3. 台灣與中國之間的政治關係對水產養殖是否造成正面或者負面的影響？為什麼？

在共產國家他們大陸的經濟，現在是風暴，房地產也風暴，整個國家經濟不景氣，covid-19 禁三年無法入境，政治關係也比較負面，如果在民主國家大家是就沒這個問題，香港自由貿易區大家都可以進去。

4. 中國對臺灣水產養殖業實施的貿易措施造成了什麼樣的實際困境？

說一句難聽一點的，因為我們台灣所飼養的魚，需求內銷，因為養太多，尤其在高雄屏東，龍虎斑都在這兩個縣市飼養，數量非常多，除了要讓國內銷售，政府還要開拓市場，要不然會滯銷，好險去年有班班有石斑，殺太多去，所以現在缺貨。還有當時銷不出去，內需市場吃太多，現在銷往大陸的魚也有限。對您來說都完全沒影響嗎？其實還好，我們的魚還是有再輸香港，然後大陸再去香港買。

第二部分：台灣政府針對中國非關稅壁壘行為所制訂政策之實際效益

1. 當下知道中國實施非關稅壁壘政策時，有做哪些措施來面對即將會遇到的經濟挑戰？

經濟的挑戰我說給你聽，他針對台灣打壓了對不對，結果有錢的越有錢窮得越窮，有本錢的一定沒問題，我可以養大尾一點，我又不是水

果，黃了不採沒辦法，魚你給我打壓我就養大一點，小型的養殖場就不行，像我大面積我不會煩惱，第一，他付不起水電費、飼料這個問題，如果我做一甲五分分成兩口（魚塭），長到要分池，要怎麼分？這個有限，大口的就沒關係，就大的搬走小的再養。

2. 曾聽過或申請過哪些中央政府的協助政策？

有啦，現在政府是這樣啦，沒年都一個機械補助、冷鏈啦，補助你水車啦冷凍庫啦發電機，你符合資格你就可以去申請，我所有的發電機都掛補助。

3. 承上題，您認為政策對水產養殖戶的實際幫助如何？

針對壁壘這個因為有香港可以跑，所以對養殖戶沒什麼影響。只是比較遠，看能否恢復直通。

4. 您認為政府提出的政策是否有效解決了問題？

對那些面積小的餘溫是有幫助的，因為所養龍虎斑的都要水車，水車24小時在轉，磨損消耗大，這是一個小部分，最重要的事他飼料的成本大，我覺得班班吃石斑是短期有效，不是一個永久的政策啦，政府也沒法為了這個，成本太大，都這些中盤商賺走。

5. 從這次的經驗當中，認為台灣水產養殖業應該要做出什麼改變來應對未來中國大陸的政策影響？

說到這我就最瞭解，當初中國說驗到藥，我剛好就是那一批送過去的，海洋局啊、中興大學、海科大高科大馬上派人來檢查，從我的池子抓了兩條還挖土測水質，我記得那時候總共抓了15條去驗一隻補貼你500，結果檢驗出來你知道怎樣嗎，都合格，你看。現在龍虎斑禁止了，像屏東那邊就改養午仔魚，屏東能夠養午仔魚是因為有淡水跟鹹水養殖可以選擇，我這邊就沒辦法，這邊都用中油冷卻水，是鹹水，中油的水是很好，沒有污染活存率高，屏東那邊沒有冷卻水，他們條件是有淡水跟鹹水，他們鹹水都抽海水，海水有海洋浮菌、細菌，我們這邊養是沒有，菌都殺死了。午仔魚用海水養的話生長期較長原本只要淡水六個月但海水要到八個月，鱸魚也一樣。

第三部分：台灣水產養殖業

1. 您認為台灣水產養殖業是否具有國際競爭力？

台灣是一個寶島四季分明。

2. 台灣水產養殖業的優勢為何？

台灣是一個寶島，除了95年霸王級寒流那次冷死魚再來就沒有了，大陸就不同了，10月份魚都要抓光，所以大陸不敢養龍膽的原因就是這樣，要養三年，要過兩個寒流。

3. 台灣水產養殖業的劣勢為何？

我們無法控制那個飼養量，大家都在養量無法控制影響到價格，打出

市場後量無法知道需求價格就會被壓。

4. **水產養殖業除了中國大陸，台灣應該開發哪些市場？**

我們蔡總統說要南向那不可能，越南的蚬港養很多，越南的魚苗都台灣過去的。市場的部分較難，養魚苗的比較有辦法。

5. **台灣政府應該如何協助水產養殖業？**

我專門在開理事會的都在跟張致盛（漁業署署長）說，政府常說要如何輔導你轉類，**是指養別的魚嗎？**不是，是轉去做別的，但我就只會養魚啊，說一句比較難聽的他們都是外行的不是內行的。最主要還是希望趕快恢復直通啦，我講給你聽，現在有五個在跑香港啦，以前直接跑大陸活魚過去要 20 小時，現在跑香港，因為比較遠，要 28 個小時，這其中要花多少錢對不對，而且我魚過去要完整的，時間越長運送過程中會撞來撞去，魚仔都變醜啦，最好是恢復直通啦。