Thailand's Counter-IUU Fishing Policy: An Analysis of Stakeholder Perceptions

Sirasa Kantaratanakul
Sasin School of Management, Chulalongkorn University, Thailand
E-mail: sirasakanta@gmail.com

Padermsak Jarayabhand
Graduate School, Chulalongkorn University, Thailand
E-mail: padermsak.j@chula.ac.th

Article History
Received: 1 July 2019 **Revised:** 24 July 2019 **Published:** 20 December 2022

Abstract
The purpose of this study is to identify, analyze and understand fishery stakeholders' perception on Thailand's counter illegal, unreported and unregulated (IUU) fishing policy, and to understand drivers behind perception discrepancies between stakeholder groups. Primary data was collected by sending a close-ended questionnaire to informants who are considered experts in the field of IUU fishing in Thailand. The questionnaire was designed to follow the framework of the counter-IUU fishing policy—the International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU). The scoring was on a modified, 5-point Likert scale, which correlated with a policy life cycle of: no recognition of issues, recognition, formulation, implementation, and control. The study results found that each stakeholder group has a different perception when reviewing the same issue—the Thai counter-IUU fishing policy. A consistent trend emerged from comparing the perceptions of each group. The stakeholder groups that directly impact policy formulation and implementation rated high on a scale, indicating that they perceive Thailand is in the implementation and control phases of counter-IUU fishing. Conversely, the stakeholder groups that had an indirect impact on the policy rated lower. These results, indicate a perception discrepancy of the Thai counter-IUU policy. These perceptions will be explored further to understand motivations and level of involvement on policy issues.
Keywords: Thailand, Fishery, IUU Fishing, IPOA, Stakeholder Perception

Introduction
Thailand has one of the strongest fishery sectors in the world. In 2019, the Southeast Asian Fisheries Development Center identified that Thailand is ranked 15th in the world for capture fisheries and 10th for aquaculture production (Southeast Asian Fisheries Development Center, n.d.). Thailand is also among the top exporters of fish and fishery products, with an estimated value of approximately six billion U.S. dollars (Food and Agriculture Organization of the United Nations, 2018; 2019). However, Thai marine resources have been depleted due to open fisheries and the growing number of fishing boats, resulting in a declining Catch per Unit Effort (CPUE) from 298 kilograms per hour in 1961 to 18.227 kilograms per hour in 2012 (Department of Fisheries, 2012; Plathong & Kantaratanakul, 2013). It is also estimated that Illegal, Unreported, and Unregulated (IUU) fishing accounts for a loss of approximately 230 million US Dollars per year in Thailand (Department of Fisheries, 2015). The European Commission (EC) asserts that "illegal, unreported and unregulated fishing depletes fish stocks, destroys marine habitats, distorts competition, puts honest fishers at disadvantage, and weakens

coastal communities, particularly in developing countries" (European Commission, n.d.). As a leading exporter of seafood products globally, a sustainable approach is necessary to ensure food security and socioeconomic stability, at present and for the future.

The European Union (EU) has long been a driver of sustainable ocean governance, and in 2015 issued a "yellow card," indicating that international fishing regulations were not being appropriately adhered to, which threatened the trade relationship between Thailand and the EU. The yellow card was meant to increase collaboration and dialogue regarding Thailand's IUU fishing practices and a plan for remediation (European Commission, n.d.). The yellow card issuance prompted the Thai government to address IUU practices to prevent sanctions on the country's seafood and fishery products, which equates to 575 million Euros (over 600 million USD) or 3% of exports per year (European Commission, 2015). To be removed from the yellow card list, the Thai government must work to improve legal and regulatory frameworks, monitor and control fleets, and ensure that trade with third country products is not from IUU fishing. The framework with which the EU issues yellow and red cards is based on normative values and enforced through international policies and community accountability. Some notable examples of communities and policies which guide fishing behavior include the UN Convention on the Law of the Sea (UNCLOS), Common Fisheries Policy (CFP), Regional Fisheries Management Organizations (RFMOs), Sustainable Fisheries Partnership Agreements (SFPAs), and IUU Regulation (European Commission, 2015). These policies and communities of accountability have been effective tools in governing global fisheries and establishing sustainable practices.

A key consideration when moving forward with planning and negotiations with the EC is having a thorough understanding of stakeholder interpretations on stages of policy implementation. Identifying perceptions among relevant stakeholders, such as policymakers, academics, enforcers, influencers and target groups, can assist in determining how well the Thai government is addressing areas needing improvement.

Policymakers represent individuals who have the authority to devise strategy and procedure, and implement regulations which become law. As hands-on practitioners directly involved in the formulation process, policymakers have significant influence on decision-making. Depending on policies that are being drafted and accounting for other influences, especially political ones, it can significantly impact the policy outcome (Hyder et al., 2010). Policymakers are in direct negotiation with influencers, or those who have the means to influence the outcome of the Thai fishery policies. In the case of fisheries reform, the main driver for a revision of the Fishery Act in Thailand was a warning from the EU of the possibility of Thailand entering the Non-Cooperative Third Countries List, an unofficial warning of a yellow card (Jarayabhand, Sopon, Neelapaichit, & Kantaratanakul, 2015). Enforcers represent the necessary departments and ministries, such as the Department of Fisheries and the Marine Department, which contribute to successful enforcement of fisheries-related law. Enforcers, like policymakers, are hands-on practitioners, directly involved in the enforcement of regulations to oppose IUU fishing.

Academia, identified in this article as representing professional scholars who are engaged in higher education and research on fisheries, have a limited and indirect impact on Thai policy, as policymakers often rely on their own views and sponsored research data for implementation. The Royal Ordinance on Fisheries (2015) states that the finest available scientific data were used for the best implementation for long-term sustainability (Royal Ordinance on Fisheries, 2015). This is an example of the indirect effects of academia on policymaking.

Influencers, defined in this article, are those that represent several types of organizations. International institutions such as governmental authorities of market-related countries for Thai seafood, nongovernmental organizations (NGOs), and intergovernmental organizations that work on fishery issues within Thailand are some examples. These organizations have indirect

effects on Thai policy by exerting external pressure on the outcome of policies. These organizations often present their arguments in terms of international obligations and multilateral agreements as justifications for change. These external pressures can be transferred into permanent influences on domestic fisheries policy (Garcia-Duran, Casanova & Eliasson, 2019).

Target groups represent several types of organizations such as the fishing associations and fishery product producers' associations. These associations will be under the direct enforcement of the fisheries law and are at a higher risk to be negatively affected. If Thailand is embargoed from the EU market, target groups are the direct recipients of these sanctions. If Thailand undergoes reforms to fulfill international obligations to avoid sanctions, target groups are still susceptible to the pressures of restrictive laws, which will affect operations and livelihoods.

This study aims to shed light on the perceptions of Thailand's counter-IUU fishing efforts from different stakeholder groups and provide an analysis of how perception differentiation can impact the government's ability to achieve consensus on a settlement resolution (Price & Cybulski, 2005; Joy & Amaewhule, 2015). Since consensus on satisfactory levels of improvement is a vital component that must be accomplished before the yellow card warning is removed, it is imperative that the Thai government understand the comprehensive perspectives of stakeholders and the distinctions within stakeholder groups, so that they can be properly managed.

Methods

This study was conducted using a customized, closed-ended questionnaire designed to assess stakeholder perceptions concerning Thailand's counter-IUU fishing policy implementation. By comparing the scores between each stakeholder group, perception differences underscore the difficulties in recognition, implementation, and enforcement of IUU fishing policies. Stakeholder identification was crucial for an accurate outcome for the stakeholder perception analysis. First, the working group, consisting of the authors of this paper, identified stakeholders through an extended brainstorming process. Afterward, a managed desk review was conducted to verify and discover any additional, pertinent stakeholders. Experts in relevant fields, such as those familiar with fishery and counter IUU fishing policies, were also consulted to solicit a list of relevant contacts who were involved with the issue. Lastly, to capture additional, unidentified stakeholders, the questionnaire included a closing question, *viz.*, "please suggest others whose work relates to IUU fishing who should receive this questionnaire."

Identifying stakeholders and choosing expert informants were done through purposive, representative sampling. Informants were selected by committee, department, association, or organization, all of whom are knowledgeable on IUU fishing and have the ability to impact, either directly or indirectly, IUU fishing policy. The informants selected were asked to represent their organization when answering the questionnaire and not as private individuals. The results of this study, therefore, reflect the perspectives of committees, departments, associations, and organizations. This was done as an attempt to reduce response bias (Bernard, 2012). For anonymity, the stakeholders in these groups are listed as their representative organization. The stakeholders were grouped into five categories based upon their interaction with fishery policy. The groups are: 1) Academia: professional scholars who are engaged in higher education and research on fisheries; 2) Target Group: organizations who are the target of fishery policy and whose behavior is directly impacted by such policies; 3) Enforcers: organizations that implement and administer Thai fishery policy; 4) Influencers: organizations whose agenda is to influence the outcome of Thai fishery policy directly or indirectly; and 5)

Policymakers: individuals who have authority and are responsible in formulating Thai fishery policy.

Additional measures were taken to minimize bias, including the incorporation of questions covering all criteria of IUU fishing, sampling from a group of informants representing all sectors related to IUU fishing, and screening questions regarding level of expertise on IUU fishing and work associated with IUU fishing. This ensures that those who participated in the study have the requisite knowledge on IUU fishing, and provide answers based on their position and affiliation.

The eight-page questionnaire was drafted to include four sections: 1) cover letter and instructions; 2) score criteria; 3) question sheet; and 4) answer sheet. The questionnaire was sent to informants by post. The mailing included a return envelope with author's address and pre-paid postage to allow informants to return the answer sheets for data collection. Primary data was obtained from opinions of the expert informants to identify the perceptions of where, in the policy life-cycle, each stage of counter-IUU fishing efforts were. The questionnaire structure was designed to follow the framework of the counter-IUU fishing policy—the International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing (IPOA-IUU)—the foundation of all counter-IUU fishing policies, including the EU Council Regulation (EC) No 1005/2008 (European Commission, 2018; Food and Agriculture Organization of the United Nations, 2001). This framework made it possible to put the results of the questionnaire on a Likert scale for comparison. To facilitate the data collection process, a pilot was conducted to test the clarity of the questions. The pilot was successful with only one minor change: to increase the font size. After the adjustment was implemented, the finalized questionnaire was sent to all informants for data collection.

The questionnaire contained a modified Likert scale from 0-4 with descriptions of the levels of implementation of the IPOA-IUU. The questionnaire included five stages of the policy life cycle: no recognition, recognition, formulation, implementation, and control, to combat IUU fishing (Pintér et al., 2009). Quantitative assessments are scaled in *Table 1*.

Table 1 Thailand's level of implementation scale

Level	Criteria
0	No recognition of the problem The government of Thailand does not recognize that there is a problem that concerns Thailand that will require the country to make changes to address this problem.
1	Recognition stage The government of Thailand has recognized the problem but has not initiated a process to begin to solve the problem. There is no law or regulation under formulation.
2	Formulation stage The government of Thailand has recognized the problem and started the process to formulate laws or regulations to solve the problem. This could include planning, consulting, drafting, finalizing, and passing of new laws or regulations.
3	Implementation stage The government of Thailand has recognized the problem. Laws or regulations to solve the problem have been approved and passed into law. The process of implementing these laws or regulations have begun in order to solve the problem.
4	Controlled stage The government of Thailand has recognized the problem. Laws or regulations to solve the problem have been approved and passed. These laws or regulations have been implemented, followed up, evaluated, and adjusted, and are now effective.

Source: Modified scaling idea from Pintér et al. (2009)

The responses to the questionnaire were used for analysis and comparison. To ensure data and calculation accuracy, the IBM Statistical Package for the Social Sciences (SPSS) software was used to record responses and generate the average response of each group. Microsoft Office Excel software was then used to plot data. The output was used to compare the results from each group and show stakeholders' perception with distinctions noted by stakeholder group.
By displaying a radar chart, the data can be visualized for comparison of scores. The radar chart axis runs from the center of the circle outward, starting with zero and ending with four. The stakeholders' perception is identified and depicts how well each group viewed the Thai counter-IUU fishing policies and its implementation. When comparing the scores for each group, the degree of discrepancy can be determined by how high or low they scored.

Research Findings

A total of 64 identified informants received the questionnaire, and 40 of them returned the answer sheets at a return rate of 62.50 percent. *Table 2* demonstrates the breakdown of response rate by group.

Table 2 Questionnaire Return Rate Separated by Group

Group no.	Stakeholder Group	Total Sent	Answer Received	Return Rate (%)
1	Academia	12	9	75.00
2	Target Group	13	7	53.85
3	Enforcer	17	9	52.94
4	Influencer	16	9	56.25
5	Policymaker	6	6	100.00
	Total	64	40	62.50

In order to analyze perceptions, the scores from the questionnaire were used to calculate the average response for each stakeholder group. Additionally, as there were two questionnaires returned from the Federation of Thai Fisherfolk Association (FTFA), the average of the two scores was taken and considered as one. This avoided double-counting for one organization and eliminated potential misrepresentation.
Since a confidentiality commitment to the selected informants had been established, the data presented below are the average responses by group. *Figure 1* illustrates the results.

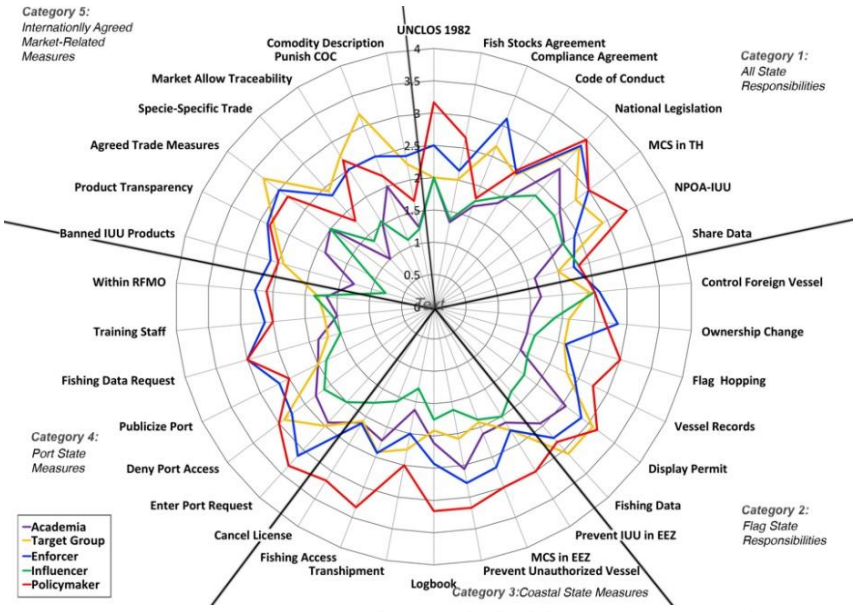

Figure 1 Questionnaire Results: Stakeholders' Perception by Group

In the table below, a further breakdown is provided to demonstrate each stakeholders' respective scores against the IPOA-IUU criteria. As a standard for comparison, the perceived IPOA-IUU implementation is compared against the Thailand National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported, and Unregulated Fishing 2015-2019 (NPOA-IUU) (Department of Fisheries, 2015; Royal Thai Embassy, 2015; Command Center for Combatting Illegal Fishing, 2016). The column "Thailand NPOA-IUU" contains metrics which depict where the country *actually* is, with regard to implementation. The scores from the stakeholder groups depict *perception* of where the country is in implementation of the IPOA-IUU.

Details:

Evidence of criteria implementation in Thailand NPOA-IUU:
3-4: Implementing partially or fully
1-2: Regulation in planning, or drafted
0: None

Table 3 Questionnaire Results

			Stakeholder Groups				
No.	**IPOA-IUU Criteria**	**Thailand NPOA-IUU**	**Academia**	**Target Group**	**Enforcers**	**Influencers**	**Policymakers**
Category 1: All States Responsibilities							
1.1	UNCLOS 198	3-4	2.000	2.000	2.500	2.000	3.167
1.2	Fish Stocks Agreement	1-2	1.333	2.000	2.143	1.375	2.667
1.3	Compliance Agreement	0	1.667	2.667	3.125	1.750	1.800
1.4	Code of Conduct	3-4	1.889	2.400	2.429	2.000	2.500
1.5	National Legislation	3-4	2.889	3.333	3.375	2.333	3.500
1.6	MCS in TH	3-4	2.444	2.750	3.000	2.333	3.000
1.7	NPOA-IUU	3-4	2.250	2.917	2.429	2.222	3.333
1.8	Share Data	3-4	1.625	2.000	2.250	2.333	2.333
	AVERAGED SCORE		**2.012**	**2.508**	**2.656**	**2.043**	**2.788**
Category 2: Flag States Responsibilities							
2.1	Control Foreign Vessel	3-4	1.667	2.417	2.571	2.500	2.500
2.2	Ownership Change	1-2	1.500	2.100	2.857	1.875	2.667
2.3	Flag Hopping	3-4	1.500	2.100	2.125	1.625	3.000
2.4	Vessel Records	1-2	1.500	2.300	2.429	1.625	2.750
2.5	Display Permit	3-4	2.556	3.083	2.857	1.750	3.167
2.6	Fishing Data	1-2	2.444	3.083	2.750	1.778	2.833

No.	IPOA-IUU Criteria	Thailand NPOA-IUU	Stakeholder Groups				
			Academia	Target Group	Enforcers	Influencers	Policymakers
	AVERAGED SCORE		**1.861**	**2.514**	**2.598**	**1.859**	**2.820**
Category 3: Coastal State Measures							
3.1	Prevent IUU in EEZ	1-2	2.111	2.250	2.250	2.000	3.000
3.2	MCS in EEZ	1-2	2.111	1.917	2.667	1.875	3.000
3.3	Prevent Unauthorized Vessel	3-4	2.556	2.083	2.778	1.625	3.167
3.4	Logbook	3-4	2.111	1.917	2.429	1.750	3.167
3.5	Transshipment	1-2	1.625	2.250	2.000	1.286	2.500
3.6	Fishing Access	3-4	2.222	2.417	2.429	1.571	3.333
3.7	Cancel License	3-4	2.111	2.083	2.125	1.750	3.167
	AVERAGED SCORE		**2.121**	**2.131**	**2.383**	**1.694**	**3.048**
Category 4: Port State Measures							
4.1	Enter Port Request	3-4	2.429	2.500	3.125	2.000	3.333
4.2	Deny Port Access	1-2	2.286	2.900	2.750	2.125	3.000
4.3	Publicize Port	1-2	2.000	2.000	2.667	1.857	2.500
4.4	Fishing Data Request	3-4	1.857	1.700	3.000	1.500	3.000
4.5	Training Staff	1-2	1.500	1.700	2.625	1.571	2.500
4.6	Within RFMO	1-2	1.667	1.800	2.778	1.857	2.600
	AVERAGED SCORE		**1.957**	**2.100**	**2.824**	**1.818**	**2.822**
Category 5: Internationally Agreed Market-Related Measures							
5.1	Banned IUU Products	3-4	1.286	2.417	2.625	0.778	2.500
5.2	Product Transparency	1-2	1.875	2.750	2.875	1.111	2.833
5.3	Agreed Trade Measures	1-2	2.000	3.300	3.000	2.000	2.833
5.4	Specie-Specific Trade	0	1.000	2.417	2.333	1.375	1.800
5.5	Market Allow Traceability	1-2	1.500	2.750	2.500	1.556	2.667
5.6	Punish Chain of Custody	1-2	2.000	3.200	2.500	1.111	2.167
5.7	Commodity Description	0	1.250	2.250	2.375	1.222	1.667
	AVERAGED SCORE		**1.559**	**2.726**	**2.601**	**1.308**	**2.352**
Averaged Scores of all Categories							
	FINAL SCORE		**1.902**	**2.395**	**2.612**	**1.744**	**2.766**

The questionnaire results revealed different perceptions by stakeholder group, regarding the IPOA-IUU. This can be expected based on how each group interacts with the policies, their position, influence, and potential for risk or reward. Overall, influencers provided the lowest scores, followed by academia. Policymakers gave the highest scores followed by enforcers. The target group gave mostly mid-range scores, apart from scoring the highest on a few criteria. There appears to be a straightforward correlation with those who affect policy directly versus indirectly. Policymakers and enforcers, who affect the policy and the implementation directly, rated the highest in almost all criteria. This can be interpreted as those groups perceiving that IPOA-IUU regulations are being implemented and enforced on a more successful level, or perhaps that they have direct knowledge of implementation status, based on their roles. Influencers and academia, who affect policy and the implementation indirectly, rated the lowest in all criteria. This perception can be interpreted as policies or stages of implementation not being recognized, that enforcement of regulations is sub-standard, or that they have limited knowledge on the state of regulations, due to their interaction and distal proximity to them. The target group, which is the only group directly impacted by policy and enforcement, scored mid-range across the spectrum. By ranking, influencers rated the lowest in 24 criteria. Academia rated the lowest in 16 criteria. The target group rated the lowest in two criteria, while rating the highest in six criteria. Enforcers rated the highest in 12 criteria. Policymakers rated the highest in 20 criteria.

The results can also be categorized by section: 1) all state responsibilities, 2) flag state responsibilities, 3) coastal state measures, 4) port state measures, and 5) internationally agreed market-related measures, to see additional differences and similarities among the stakeholder groups.

1) *All state responsibility.* Both influencers and academia perceived the IPOA-IUU implementation in Thailand the lowest in all criteria within this category, although the total average suggests that they believe Thailand is in the formulation stage (1.0-2.0). Interestingly, both groups rated six of eight criteria at approximately the same scores. UNCLOS 1982 (2.0), Fish Stock Agreements (1.3), Compliance Agreement (1.7), Code of Conduct (2.0), MCS in Thailand (2.4), and NPOA-IUU (2.2).

2) *Flag state responsibilities.* Academia rated the lowest scores in four out of six criteria, which are control of foreign vessels (1.7), vessel ownership change (1.5), flag hopping (1.5), and vessel records (1.5). This was in contrast to the overall trend where influencers mostly rated the lowest. However, the average scores of both stakeholder groups in all categories demonstrate that influencers and academia continue to perceive similar trends.

3) *Coastal state measures.* This section demonstrated a stark difference between the highest and lowest scores. Influencers rated implementation in this category a 1.7, while policymakers rated a 3.0. When examining the criteria listed in this category, comparing the NPOA-IUU with scores provided by stakeholder groups, it is possible to hypothesize that proximity to laws and regulations and their progress within Thailand can only be known by those who are directly involved with them. With this in mind, an understanding can be gained as to why policymakers would score the highest, and influencers would score the lowest.

4) *Port state measures.* Policymakers and enforcers scored high in all criteria, which are: enter port request, deny port access, publicize port, fishing data request, training staff, and regulation within RFMOs. They have approximately the same scores at 3.2, 2.9, 2.6, 3.0, 2.6, and 2.7 respectively. Interestingly, in one criterion, deny port access, the target group rated higher than enforcers. This may be due to the perception that they are enforced upon to a greater degree, leading to an overall belief that restrictions are tightening in some measures, particularly denial in port state access.

5) *Internationally agreed market-related measure.* In this category, the target group rated the highest in four out of seven criteria, as well as overall average (2.7), rating higher than any

other stakeholder group. This category is the agreed upon standard for compliance, and target groups are the ones who directly interact with the criteria listed. They believe that they, and the Thai government, are implementing and adhering to internationally agreed upon policies regarding IUU fishing. Enforcers rated just below the target group, with a score of 2.6. It is especially interesting that target groups and enforcers rate higher than policymakers in this category, as policymakers would seem to have more direct knowledge of which stage these policies are in.

Discussion & Conclusion

Skilled negotiators bring their own beliefs, perceptions, emotions, and communication styles to the table when vital interests are at stake (Aquilar & Galluccio, 2008). In the case for Thailand, it is imperative to understand the perceptions, or cognitive distortions, of key stakeholders regarding IUU fishing to synthesize and act on behalf of the nation to reach a consensus with the EC. Each stakeholder group, as well as their potential motivations, were examined to gain insight on the logic driving the differences in their perceptions. The data were examined separately by group, before comparison.

Influencers rated the Thai implementation to combat IUU fishing the lowest, on average, in comparison with other groups, scoring a 1.744. This is indicative that influencers perceived that Thailand only recognizes, and is in initial stages of policy formulation, regarding the issues across all categories of IPOA-IUU. There are numerous reasons as to why influencers' perceptions could reflect poorly on the implementation and control of IUU, one of which could be driven by the need to fulfill an organizational mission and instill tangible results based on their agenda. An example would be Greenpeace's goal "to ensure the ability of the earth to nurture life in all its diversity" (Greenpeace International, n.d.). The exact reasons for low scores could not be determined from the data gathered, as there were no qualitative sections to provide reasoning behind their respective scores. It is also important to mention that the returned answers did not include the EU, one of the major stakeholders within the group.

The average academic perception, rating Thai methods to combat IUU fishing at the second lowest level (1.902), could be driven by their general nature, which is to increase knowledge and wisdom in a given field (George, 1994). To contribute to a body of knowledge on any issue, academia must be conceptual, critical, and comprehensive, all the while looking for ways to improve and provide recommendations for improvements (Barnett, 2004). For academia, a straightforward view of any situation is not likely, which contrasts with practitioners, who often need simple explanations to drive implementation (Ezekiel & Post, 1991). The motivation of academia, as a stakeholder group, could also include respect, recognition, scholarly contribution and improvements (Zhang, 2014). Therefore, in order to contribute to the greater understanding of the issues of IUU fishing, there will always be something that needs improvement, which may be a primary contributor to the lower scores.

The target group rated higher than academia and influencers, but lower than policymakers and enforcers regarding implementation of IPOA-IUU; with an average score of 2.395. This is a predictable finding because they are the primary recipients of the enforcements of policies.

Some factors that could explain why they perceive the Thai implementations to be mid-range across the spectrum, is that their stakes are varied, and some criteria are more impactful to individuals and groups than others. An important consideration in the analysis of the target group is that the returned answers did not include the National Fisheries Association of Thailand (NFAT), one of the key stakeholders within the group.

On average, enforcers rated the second highest on perceptions regarding implementation of IPOA-IUU with a score of 2.612. There were a couple of notable distinctions in this group's scores, however. Enforcers rated the highest in port state measures, although very similar to policymakers, providing a score of 2.824, which means that Thailand was perceived as being

in the process of formulating policies but has not yet reached the implementation stage. An explanation of why enforcers could have rated port state measures higher could be that when comparing to other sections, port state measures have a fixed number of entries to control and is much more streamlined to implement than coastal state measures, which has a vast area to cover to enforce policies. Policymakers scored higher on coastal state measures (3.048) than enforcers (2.383). Enforcers are an important stakeholder group to facilitate Thailand's removal of the yellow card warning. Although they are not in direct negotiations with the EC, the enforcers need to be perceived by the EC as a group that will enforce policies effectively. This could also be an explanation as to why enforcers rated Thailand's implementation of IPOA-IUU on a higher scale.

Policymakers rated the highest in all but two sections, only slightly preceded by perceptions of enforcers. The average score for policymakers across all categories was 2.766. The highest scoring categories include: all state responsibilities, flag state responsibilities, and coastal state measures, which are primary categories of measure that rely heavily on national legislation. It follows logic to conclude that policymakers would rate the highest average implementation score for IPOA-IUU because they are the responsible party of decisions and outcomes made by the EC regarding continued trade, sanctions, and impacts to GDP. They are the direct conduits in negotiation, and must project a position of authority and control, thus providing higher scores.

A consistent trend emerged regarding the relationship between the stakeholder groups, their level of involvement with policy, and their perception on the implementation of different criteria within the IPOA-IUU categories. Some stakeholders tended to rate more in their favor, especially in criteria or categories where they were heavily involved. For example, if stakeholders felt that improvement was needed within categories, the rating would be lower. If stakeholders felt that acceptance or approval was needed, such as the enforcers demonstrating that they were effectively doing their work, the rating would increase. Another consideration is that stakeholders who are directly involved in the policy formulation and implementation simply have more up-to-date information on Thai policies and its current state of implementation to combat IUU fishing. Therefore, those who have a direct impact on the policies rated high, versus those who indirectly affect the policy formulation and implementation, who do not have the same information rated lower.

In sum, a cyclical pattern can be seen between the direct involvement of policymaking and the perception of the level of implementation of IPOA-IUU with those who become less affected. Policymakers are directly affected, on a national scale, by decisions made by the EC. Enforcers are affected by policymakers, who determine and enact laws. Target groups are impacted by both policymakers and enforcers, and are subject to punishments affecting livelihoods if they do not comply. Academia and influencers are the least impacted, but are the ones who ultimately shape and reinforce policies. The results from the questionnaire demonstrate that different stakeholders, based on how they interact with counter-IUU fishing policies, have distinct perceptions on the same issues. These perceptions are guided by factors including motivation, needs, and level of involvement with counter-IUU fishing policies.

Acknowledgement

The author would like to thank the Environment, Development and Sustainability Program (EDS), Graduate School, Chulalongkorn University for its supports—financial and nonfinancial. Author also would like to thank all the informants who participated in this study. A special recognition for Asst. Prof. Thanaporn Sriyakul, Nick Pisalyaput, Alex Mavro, Vasu Srivibha, Aimée Wolff, Richard May, and Elizabeth May for their intellectual assistance, which made this study possible.

References

Aquilar, F., & Galluccio, M. 2008. Cognitive, Emotional, and Communicative Aspects in International Negotiation: Affective Neuroscience Contribution to the General Understanding of the Negotiation Process. In **Psychological Processes in International Negotiations** (pp. 43-67). New York: Springer.

Barnett, R. 2004. "The Purposes of Higher Education and the Changing Face of Academia." **London Review of Education** 2 (1): 61-73.

Bernard, H. 2012. **Social Research Methods: Qualitative and Quantitative Approaches**. California: SAGE Publications.

Command Center for Combatting Illegal Fishing. 2016. **Thailand's Fisheries Reform: Fighting IUU fishing and forced labour**. Retrieved from https://aseanregionalforum.asean.org/wp-content/uploads/2019/10/ANNEX-7-Presentation-by-Thailand.pdf.

Department of Fisheries. 2012. **Annual Report 2012**. Retrieved from www4.fisheries.go.th/doffile/fkey/ref50551.

Department of Fisheries. 2015. **National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing 2015-2019**. Retrieved from www4.fisheries.go.th/local/file_document/20170403165607_file.pdf.

European Commission. n.d. **Illegal fishing. Oceans and Fisheries**. Retrieved from https://oceans-and-fisheries.ec.europa.eu/fisheries/rules/illegal-fishing_en.

European Commission. 2015. **Commission warns Thailand over insufficient action to fight illegal fishing**. Retrieved from http://eeas.europa.eu/archives/delegations/thailand/documents/news/150421-iuu_en.pdf.

European Commission. 2018. **COUNCIL REGULATION (EC) No.1005/2008**. Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008R1005&from=EN.

Ezekiel, R., & Post, J. 1991. "Worlds in collision, worlds in collusion: The uneasy relationship between the policy community and the academic community." **Terrorism and Political Violence** 3 (1): 117-125.

Food and Agriculture Organization of the United Nations. 2018. **The State of World Fisheries and Aquaculture 2018**. Retrieved from www.fao.org/3/i9540EN/i9540en.pdf.

Food and Agriculture Organization of the United Nations. 2019. **Fishery and Aquaculture Statistics 2017**. Rome: Food and Agriculture Organization of the United Nations.

Food and Agriculture Organization of the United Nations. 2001. **International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing**. Retrieved from www.fao.org/3/y1224e/Y1224E.pdf.

Garcia-Duran, P., Casanova, M., & Eliasson, L. 2019. "International institutions and domestic policy: assessing the influence of multilateral pressure on the European Union's agricultural policy." **Journal of European Integration** 41 (2): 131-146.

George, A. 1994. "The two cultures of academia and policy-making: bridging the gap." **Political Psychology** 15 (1): 143-172.

Greenpeace International. n.d. **Our Values**. Retrieved from www.greenpeace.org/international/explore/about/values/.

Hyder, A., Corluka, A., Winch, P., El-Shinnawy, A., Ghassany, H., Malekafzali, H., & Ghaffar, A. 2010. "National policy-makers speak out: are researchers giving them what they need?." **Health Policy and Planning** 26 (1): 73-82.

Jarayabhand, P., Sopon, A., Neelapaichit, K., & Kantaratanakul, S. 2015. **EU "Yellow Card" Crisis and its effect on Thai Fisheries**. Bangkok: Centre for European Studies at Chulalongkorn University.

Joy, A., & Amaewhule, A. 2015. "Crisis Management and Conflict Resolution Strategies in Business Organizations in Rivers State." **Developing Country Studies** 5 (21): 6-13.

Pintér, L., Swanson, D., Abdel-Jelil, I., Nagatani-Yoshida, K., Rahman, A., & Kok, M. 2009. **IEA Training Manual, Module 5**. Retrieved from https://wedocs.unep.org/bitstream/handle/20.500.11822/11306/module-5.pdf?sequence=1&amp%3BisAllowed=y%2C%20French%7C%7Chttps%3A//wedocs.unep.org/bitstream/ha.

Plathong, S., & Kantaratanakul, S. 2013. **Oceans in the Balance, Thailand in Focus**. Retrieved from www.greenpeace.org/static/planet4-southeastasia-stateless/2019/04/5704cbc0-5704cbc0-english-singlepages.pdf.

Price, J., & Cybulski, J. 2005. "Consensus Making in Requirements Negotiation: the communication perspective." **Australasian Journal of Information Systems** 13 (1): 209-224.

Royal Ordinance on Fisheries 2015.

Royal Thai Embassy. 2015. **Fact Sheets on Thailand's Latest Efforts to Combat Illegal, Unreported, and Unregulated Fishing (IUU)**. Retrieved from https://thaiembdc.org/2015/11/19/fact-sheets-on-thailands-latest-efforts-to-combat-illegal-unreported-and-unregulated-iuu-fishing/.

Southeast Asian Fisheries Development Center. n.d. **Fisheries Country Profile: Thailand**. Retrieved from www.seafdec.org/fisheries-country-profile-thailand/.

Zhang, X. 2014. **Factors that Motivate Academic Staff to Conduct Research and Influence Research Productivity in Chinese Project 211 Universities**. Doctoral of Business Administration Thesis, University of Canberra.