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An Analysis of the Federal-Tribal Fish Management Agreement on the Kuskokwim River Alaska, United States

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Master thesis in Governance and Entrepreneurship in Northern and Indigenous Areas
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Abstract

The study examines the federal-tribal fisheries management partnership in the Kuskokwim River Delta under the MOU. Accommodating Alaska Natives into the dual management system that oversees subsistence fisheries in the Kuskokwim River remains elusive. Five decades after the Alaska Native Settlement and passing of the Alaska Native Interest in Land Conservation Act in 1982, the 'co' in subsistence fisheries partnership with Native Alaskans remains a myth until the MOU came in 2016.

Implementing neoliberal policies in favor of commercial fishers and fisheries above subsistence users and the influx of non-natives resource users into Alaska are factors that accelerate the over-exploitation of Kuskokwim fisheries. While rebuilding stocks is paramount and requires management actions, these actions placed heavy burdens and put Native Alaskans at grave risks of meeting subsistence needs. The tightening harvest rules on harvesting further strained the fragile relationship between Kuskokwim tribes and federal managers.

The signing of the MOU with the KRITFC in 2016 marks a shift in paradigm, a new path to reconciling differences and rebuilding federal-tribal trust in resource management. Investigating the role of subsistence harvest information and how consultation in subsistence fisheries management and decision-making operates are central to this research. The study uses the document analysis method to track the implementation of the MOU by reviewing selected literature on co-management and analyzing five federal-tribal cooperative agreements in the United States. This research draws on co-management strengths and weaknesses and situates the scenario of federal-tribal subsistence management of Kuskokwim fisheries.

In conclusion, the study unravels that the benefits of partnering with federal managers in the management of subsistence fisheries far outweigh the tragedies for Kuskokwim tribes. Despite not guaranteeing subsistence priority, the opportunity for tribal inclusion and direct participation of the KRITFC in federal subsistence fisheries management and federal decision processes are enormous for the Kuskokwim tribes. It is far better for the Kuskokwim tribes to be part of a mechanism to dialogue and participate directly in managing subsistence fisheries with public managers than being left on the sidelines.

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Chapter 1 Introduction

Federal agencies owe that obligation to consult with Native Alaskans before deciding on matters of natural resource management that could severely impact native communities or strain the trust between the United States Government and Native Alaskans (Starkey, 2016:321; Diamond et al., 2013). The Federal-State-led management that oversaw fisheries in the Kuskokwim River before 2016 flouted that obligation for the failure of the regime to involve Kuskokwim Tribes in the management and decision-making process. In 2016, the Memorandum of Understanding between the U.S Department of Interior, U.S Fish and Wildlife Services, and the Kuskokwim River Inter-Tribal Fish Commission, set a path to offset the exclusion of Kuskokwim Tribes in the management of Kuskokwim fisheries.

Kuskokwim River fish stock plummeted under the watch of the Federal-State management regime due to years of overfishing, mostly from commercial fishing fleets. This development was a dilemma for Native Alaskans, first being excluded from management and the decision processes, yet having to bear the burden of not meeting their subsistence needs due to restrictive management actions that limit harvest (Fall et al., 2016:83; Walsey & Brewer, 2018; Ban et al., 2017; Donoghue et al., 2010; Starkey, 2016:323). Efforts to rebuild stock warranted implementing restrictive harvest policies. Some of these restrictions failed to consider the impacts of fisheries closure on users that have no alternative means of survival if they cannot harvest natural resources to meet their subsistence needs (Linxwiler, 2007; Anderson, 2007).

Native Alaskan rights to use natural resources to meet their subsistence needs were not addressed by Alaska Native Claim Settlement Act (ANCSA). The failure to address subsistence use by the ANCSA necessitated the passage of the Alaskan Native Interest in Land Claims Act (ANILCA) in 1981 by the United States Congress. Tragically, the initial phase of implementing the ANILCA failed as it did not meet the expectations of Native Alaskans (Ban et al., 2017:1177; Starkey, 2016:320; Diamond et al., 2013:226-227). The United States Government previously delegated its authority under Title VIII of the ANILCA to manage subsistence resources to Alaska State management agencies.

In 1989, the Supreme Court of Alaska, in its *Mc Dowell* decision, found that the subsistence priority provisions of the ANILCA violated the State's Constitution. As a result, the State's

involvement in subsistence priority was discontinued. The Mc Dowell decision made it expedient that the United States Government adopt a different approach to address subsistence priority; federal-tribal co-management offered that alternative.

Federal-tribal co-management is existential in that it offers the Kuskokwim tribes (through KRIFTC) a path to navigate and network into the federal subsistence fisheries management system and decision processes. Additionally, increasing competition for Alaskan resources will, in the future, result in diminishing subsistence harvest opportunities and unending fishing closures (Donkersloot et al., 2020a). Through federal-tribal co-management, Native Alaskans have an opportunity to present their concerns (Ban et al., 2017; Starkey, 2016:324) and have a say in management (Stevenson, 2006:169) through the MOU.

This study investigates fisheries' federal-tribal co-management operation under the tripartite MOU between the FWS, DOI, and the KRIFTC. This study answers the following research questions:

1. How does the U.S Fisheries and Wildlife Services treat the information and data that it receives from the Kuskokwim River Inter-Tribal Fish Commission?
2. Is consultation between the parties in compliance with consultation envisaged under the Memorandum of Understanding that creates the federal-tribal co-management?

1.1.1 History of Federal-Tribal Cooperation in the United States

The territory that is now the State of Alaska was sold to the United States by Russia in 1867 for \$7.2 million and was managed as a frontier by different government departments at different times until its official recognition as the 50th State in January 1959 (Alaska Statehood Act 1958; Diamond et al., 2013). Given that the United States purchased Alaska, Native Alaskans did not have an opportunity of treaty-making with the United States Government, as it was the case with indigenous tribes that could invoke through treaties (Mills & Nia, 2020:14; Linxwiler, 2007) to assert rights and claims. No treaty explicitly protect Alaskan Natives' right to hunt, fish and use natural resources to meet subsistence needs (Starkey, 2016; Nie, 2008; See Also *Tlingit and Haida Indians V. United States*). Nonetheless, the US government recognizes these rights as pre-existing the State of Alaska and, therefore, inalienable save on fair and just grounds (Anderson, 2007; Diamond et al., 2013).

The 1971 Alaska Native Claims Settlement Act (ANCSA), offered a settlement to tribes in return for extinguishing their indigenous titles and claims to land in Alaska. Among the apparent pitfalls of the ANCSA is its complete silence about the usufructuary rights of Alaskan Natives to resources on land and within marine spaces (Diamond et al., 2013; Chris, 2018; Linxwiler, 2007). The settlement's application to offshore lands and resources therein is similarly left unanswered. In *Alaska v. Ahtna, Inc.*, 891 F.2d 1401 (9th Cir. 1989), the Circuit Court later resolved that ANCSA does not apply to land and resources on land offshore. However, in the *People of Village of Gambell v. Hodel*, 869 F.2d 1273 (9th Cir.1989), the same court departed from its previous decision and upheld that some of the ANCSA provisions do apply and restrict offshore hunting and fishing.

The United States Congress in passing the Alaska Natives Interest in Lands Act (ANILCA) Pub L. 96-487 in 1980; recognizes that ensuring the traditional and cultural continuity of Alaskan Natives hinges on safeguarding their subsistence priority to use natural resources for “direct personal or family consumption”. Title VIII of the ANILCA (S. 801-806) specifically addresses the management and the use of natural resources on federal public lands by rural Alaskan residents (includes Natives and Non-natives). Direct and personal or family consumption extends to “barter and customary trade of non-commercial nature”.

Indigenous usufructuary rights in Alaska remain unsettled (Linxwiler, 2007; Anderson, 2007), despite the passage of the ANILCA, and even to this day. Thus, through the combined effect of the ANCSA, ANILCA, and the resulting resource management regulations by the Federal Government and the State of Alaska greatly restricted/limited Native Alaskan’s long-standing rights to use natural resources and provided little ability to influence resource policies (Loring & Gerlach, 2010).

In the search for a common ground that enables federal managers to liaise with Native Alaskans to manage natural resources, co-management and cooperative agreements have gained popularity in the United States. In the first such case, the National Ocean and Atmospheric Administration and the Alaska Eskimo Whaling Commission (AEWC) signed an agreement in 1984 (Metcalf & Robards, 2008, Mitchell & Reeves, 1980). Due to some internal disagreements, the 1987 tripartite memorandum of understanding between the United States Fish and Wildlife Services (FWS), Alaska Department of Fish and Games, and the Eskimo

Walrus Commission (EWC) did not evolve into a tri-partite agreement, but the EWC and FWS signed a bilateral cooperative agreement in 1997 (Metcalf & Robards,2008).

With the early success of federal-tribal co-management of marine mammals, this practice gradually spread within federal agencies across the United States (Nie, 2008). An example is the 2005 MOU between the U.S Department of Interior, National Park Service, Great Smoky Mountain National Park, and Discover Life in America, Inc. to protect natural and cultural resources. Aside from the MOU to manage fish on the Kuskokwim River in Alaska, one rare example of fisheries co-management in the United States is between the FWS and Nez Perce Tribe though without a formal or informal agreement (Starkey, 2016).

It is worthy of mention that the Marine Mammal Protection Act of 1994 (Public Law 103-238) and S. 809 of the ANILCA both empower federal agencies to initiate co-management and cooperative agreements with tribes/tribal organizations. If, as claimed that the ANCSA extinguished aboriginal titles (Chris McDevitt, 2018; Diamond et al., 2013), then a tribal right to partake in management and resource decision-making is all that is left of their former sovereignty (Nie, 2008). Thus, this study argues that the since the MOU between federal agencies and the KRITFC is a continuum of unfinished business with the ANCSA and ANILCA, implementing its provisions could augment tribal rights to use natural resources.

1.1.1 History of the Kuskokwim River Inter-Tribal Fish Commission (KRITFC)

Over 1130km long and a drainage area of 48,000 sq. km, the Kuskokwim River is the second largest river in Alaska (Alaska Department of Fish and Games, 2020; Staton & Coggins, 2016). The river runs through communities that rely on the river and its resources for their subsistence. Legally, the Kuskokwim River is partitioned along federal-state boundary lines because nearly half of the river now lies within the Yukon Delta National Wildlife Refuge under (federal control) (Diamond et al, 2013:229). The remaining portion falls under the jurisdiction of the State of Alaska. Before the McDowell decision by the Alaska State Supreme Court in 1989, which invalidated a subsistence priority provision for rural Alaskans, the federal government delegated its management of the subsistence priority program (agreed to under the ANILCA) to the State of Alaska (Donkersloot et al., 2020 b, Diamond et al., 2013: 227-228).

Following dwindling fish stocks, the FWS passed an emergency special action to close fishing in the summer of 2012. This moratorium attracted severe criticisms from Alaskan

Native fishers. Attempts by the federal inspectors to enforce harvest regulations resulted in stiff resistance from local fishers (Brelsford, 2019:17). Things turned ugly afterward when enforcing the moratorium resulted in fines, arrests, and trial of erring fishers (Stevens & Black, 2019).

Before 2015, no space existed for Alaskan Natives to participate in Kuskokwim fisheries management and its decision processes. Harvest regulations continued to expand access to outsiders while limiting fishing opportunities for Native Alaskans and rural residents (Donkersloot et al., 2020a). This situation coupled with the absence of a collective tribal voice in the fisheries management system, awakened tribal consciousness among Kuskokwim tribes (KRSMG, 2019; Brelsford, 2019). Consequently, the KRITFC was set up in 2015 to represent the tribes, resist further restrictions, and advocate for increased protection for Native Alaskans' rights to subsistence harvest of Kuskokwim fisheries (Stevens & Black, 2019).

The divide between federal managers and Alaskan native intensified as Kuskokwim between 2010 and 2015 as Kuskokwim river fisheries plummeted to a record low; and the measures put in place to rebuild stocks included harvest restrictions and fish closures for all user categories. Efforts at reconstructing the frosty relationship between federal managers and Alaskan Natives crystalized into signing the memorandum of understanding between the FWS, DOI, and the KRITFC in 2016 (Brelsford, 2018; Chris McDevitt, 2018; Keeping What You Catch, Promoting Subsistence Activities in Native Communities, 2018; Stevens & Black, 2019). Thus, the MOU was believed to offer a path to trust-building and a platform for the Kuskokwim Tribes to speak for themselves with one voice while partaking as equal partners (Chris McDevitt, 2018) with federal agencies to manage Kuskokwim River fisheries.

The signing of the MOU in May 2016 officially formalizes the fish management partnership in the Kuskokwim River Delta between the Fisheries and Wildlife Services, Department of Interior, and the Kuskokwim Inter-tribal Fish Commission. By putting the agreed terms in writing and executing the words by the parties, the MOU gravitates from an expression of intent to a legally binding and enforceable agreement between the parties.

1.2 Methodology

As the method to undertake this research, the document analysis will be used to analyze the content of the MOU in two ways. First, by adapting Bowen's (2009) definition of document analysis as a "systematic procedure for reviewing printed or electronic documents" I can

evaluate if the content of the MOU meets the standard of co-management or cooperative agreement in the context of a federal-tribal relationship in the United States. This study evaluates the terms of the MOU by comparing with five cooperative agreements involving federal agencies and tribes the United States which are; the National Ocean and Atmospheric Administration (NMFS) and Alaska Eskimo Whaling Commission, National Marine Fisheries Service (NMFS) and Alaska Beluga Whale Committee (ABWC) , National Marine Fisheries Service (NMFS) and Aleut Marine Mammal Commission (AMMC) , National Marine Fisheries Service (NMFS) and Ice Seal Committee (ISC), and National Marine and Fisheries Service (NMFS) and Aleut Community of St. Paul Island (ACSPI).

Second, I can investigate whether the implementation of the MOU is consistent with the text itself. Evidence from documentary records should reveal about how the parties are putting the terms of the MOU on paper into management planning, and resource decision-making. Researching the co-management of subsistence fisheries through the MOU encapsulates the limitation of using the document analysis method to research an emerging relationship with limited literature (Bowen, 2009; O'Leary, 2014). However, this research is essential and adds to the literature on federal-tribal resource collaboration in the United States. Besides the MOU, literature on co-management involving tribes and federal agencies in the United States and Alaska, in particular, offers rich insights to examine the areas of collaboration where parties are fulfilling their obligations and those areas that require improvements.

Researching the co-management of subsistence fisheries through the MOU encapsulates the limitation of using the document analysis method to research an emerging relationship with limited literature (Bowen, 2009; O'Leary, 2014). However, this research is essential and adds to the literature on federal-tribal resource collaboration in the United States. It was expedient to narrow the scope of the study to make the research manageable within the allotted time. Moreover, given that the two research questions revolve around the implementation of the MOU, it is logical to use the MOU as a primary source of research data. The study uses the descriptive method and direct comparison of the terms of selected federal-tribal cooperative agreements and how parties implement them to reveal clues on improving compliance with the MOU to manage subsistence fisheries in the Kuskokwim River delta.

1.3 Conceptual Framework

This study uses the concept of “natural resource co-management” as a lens to understand the MOU on fish management between federal agencies and Native Alaskans in the Kuskokwim River Delta and its implementation in practice. Co-management in the most basic sense connotes equal management, and this is often not the case with federal-tribal co-management in the United States (Donoghue et al., 2010:28; Metcalf & Robards, 2008:150) where the government sets the arrangement to keep crucial roles within its agencies while assigning miniature and less influential roles to tribal institutions (Donoghue et al., 2010:28).

Co-management is a broadly defined term, and different writers and scholars focus on different aspects such as power-sharing (Nadasdy, 2003:369, Berkes, 2009:1692), institution building (Jentoft and McCay, 1995:229, trust (Nadasdy, 2003:376; Eamer, 1998:186), social capital (Pretty and Smith, 2004:633), problem-solving (Olson et al., 2004:75) and equality (Chris McDevitt, 2018). This study focuses on three aspects, the first two aspects emphasized by Berkes (2009) power-sharing in decision-making and as a process, and equal partnership highlighted by Chris McDevitt (2018).

The term co-management, in the words of Berkes (2009:1693), refers to a “range of arrangements, with different degrees of power-sharing, for joint decision-making by the state and communities (or user groups) about a set of resources or an area”. By highlighting co-management as an arrangement with divergent degrees of power-sharing Berkes’s definition of co-management reflects the management of subsistence fisheries between federal managers and the KRITFC. The MOU was devised to address the formerly complete concentration of power in public managers (federal and state agencies) overseeing Kuskokwim fisheries, when Native Alaskans were not involved in the management and decision-making. Nonetheless, the MOU vest key decision-making powers in federal agencies as well as an unfettered discretion to make certain decisions with or without input from the KRITFC. As such significant power differentials continue to exist between the parties.

Although not expressly defining co-management as a process, the study draws from Berkes’s argument an inference that co-management as a dynamic and continuous process is suitable for solving complex social ecological problems like natural resource management which not a single approach or solution is readily available to deal with current as well as unanticipated issues that may emanate in the future (Berkes, 2009:1694). Furthermore, such a

process can be a “formal, semi-formal or informal way of sharing managerial responsibilities” between the parties. As a process, co-management is a means and not an end in itself, one that is “dynamic and continuous and requires a considerable amount of time” to materialize into desired outcomes. By aligning this aspect of co-management for this research, the sharing of managerial responsibilities with the KRITFC shaped through in-season fisheries decision-making and the build-up processes through which management makes decisions can be seen as a bridging point for problem-solving and decision-making.

In addition, the MOU as an informal agreement creates a mechanism on how to manage subsistence fisheries to integrate Kuskokwim tribes (through the KRITFC) into the management and decision-making processes. The second aspect of the MOU is to bring the KRITFC into the federal subsistence management system. This study considers that trust-building through federal-tribal co-management help the managers and Native Alaskans to find a common ground to respond, learn and adapt to the complexities inherent in the management of subsistent fisheries in the Kuskokwim river. As a path to many ends, the MOU satisfies (Berkes, 2009) the concept of co-management being a process that leads to many paths.

Raymond-Yakoubian et al. (2017) argue that integrating indigenous peoples as knowledge holders and indigenous knowledge in the formal decision-making and related processes in managing natural resources, requires participation in management as equal partners (Chris McDevitt, 2018). Power disparities and lack of resources incapacitate tribal ability to influence resource management decisions and outcomes meaningfully.

Chris Mc Devitt (2018) emphasized the importance for Native Alaskans to have an equal say in the management of natural resources and its decision processes through co-management. The rationale for a strict stance on equal partnership is to enable Native Alaskans to have a level playing field with public managers in resource-decision making. Although having a level playing field at the starting point tend to portray an association based on equal footing, the outcomes of the relationship may generate and entrench inequalities. Nevertheless, equal partnership creates an opportunity to strengthen Native Alaskan voices in management and decision-making. Strengthened Native voices in decision-making could be used to deconstruct the power differentials and systemic inequities that may be preserved through co-management.

Therefore, the primary research conducted for this thesis investigates how federal agencies interrelate with the KRITFC in the management of subsistence fisheries through consultation and exchange of information while planning, formulating, and implementing fisheries management as agreed to in the MOU.

1.4 Literature Review

Involving indigenous peoples as partners in the management and decision-making processes under the two natural resource management regimes in Alaska (the United States Government and the State of Alaska) is fraught with complexities. While the United States Government must prioritize and ensure that Alaskan Natives (federally recognized as tribes) can access and use natural resources for subsistence needs, the State of Alaska, on the other hand, have no such obligation towards Alaskan Natives (Donkersloot et al., 2020a; Diamond et al., 2013).

The impacts of colonization, the effects of implementing post-colonial and neo-colonial resource laws, the drive for commercial exploitation and population increases (Cady et al., 1955:17) all intensify the harvesting of resources and put Native Alaskans at grave risk of meeting their subsistence needs (Donkersloot et al., 2020 B; Cruickshank et al.,2019, Diamond et al., 2013). Federal-Tribal co-management by agreement is maturing gradually to address some of the systemic failures of western-centric management and resource policies (Cruickshank et al.,2019; Stevenson, 2006) that place indigenous subsistence priorities at the bottom of resource decisions (Donoghue et al., 2010).

Despite substantial regional differences, the terms of most co-management and cooperative agreements to manage natural resources between federal agencies and tribal organizations are identical in most areas (See Appendix 1 comparison of the MOU with five co-management Agreements). Some variations in certain aspects of these agreements grant more managerial oversights and decision-making roles to tribal institutions. The outcomes of implementing federal-tribal co-management and similar agreements with indigenous peoples in the United States vary from one arrangement to the next (Mills & Nie, 2020).

As Martin Nie (2008) argued that Native rights of tribes in treaties with United States Government have and are being systemically downplayed in federal land and resources management laws and policies. King (2007) opine that co-management and cooperative

agreements with federal agencies are used by tribes to re-energize and reassert these rights in contemporary times. Diamond et al., (2013) emphasize that reserved treaty rights are alien in Alaska, because “Native Alaskan did not sign treaties” with the United States Government as is the case with Indian tribes in the conterminous United States, this does not quash the rights of Native Alaskans to fish, hunt and use traditional resources to meet subsistence needs.

Following the decision of the Supreme Court of the State of Alaska in *Mc Dowell V. State* (1988), the court ruling that “granting subsistence priority based on residency” violate the Alaskan State Constitution makes it more evident that the federal government needs to do more (Diamond et al. 2013). Doing more means preserving and implementing management actions that create, protect, and preserve harvesting priorities and opportunities for Native Alaskans.

In lieu of treaty with the United States, the Alaska Native Claim Settlement Act, is the symbolizes Federal-Tribal Agency (Anderson, 2007) across Alaska. The absence of federal-tribal treaty relationship, and the silence of the ANCSA on usufructuary rights of Alaskan may only make asserting these rights problematic (Diamond et al., 2013), it does not extinguish them. As Cady et al., (1955) confirms that “commercial interest to accelerate natural resource extraction” was the major driver of the ANCSA, the subsequent actions initiated by the United States Congress with the passage of the ANILCA, and federal laws that encourage federal-tribal resource co-management and cooperative agreements point at one thing. These developments confirm Native Alaskan usufructuary rights are important and intact.

Natural resources in Alaska that fall outside federal jurisdiction are under the control of the State of Alaska. As a result, Natives Alaskans have to follow the rules set by the state of Alaska to access and harvest subsistence resources in addition to federal regulations (Walsey & Brewer, 2018). In order to harvest natural resources, the requirement that Native Alaskans must adhere to multiple laws, and unidentical regulatory standards set by the federal and state management agencies to harvest the same resources often obfuscate the general understanding of what harvest rules govern what resources and where? (Keeping What You Catch: Promoting Subsistence Activities in Native Communities, 2018)

1.4.1 Gaps in Literature on federal-tribal co-management

There are divergent views on whether federal-tribal co-management creates an opportunity for tribes to participate meaningfully in resource management and decision-making

(King, 2007; Nie, 2008; Diamond et al., 2013 and Chris McDevitt, 2018). Proponents like (Starkey 2016) argue that tribal institutions co-managing resources with public agencies are “advancing tribal hunting and fishing interest and self-determination”. In cases where federal-tribal co-management has been a success, tribal interests and discourses in resources have witnessed increased attention (Metcalf & Robards, 2008; Donoghue et al., 2010; Mill & Nie, 2020). Although the federal-tribal fish co-management in the Kuskokwim river is nascent and evolving, successful collaboration could produce invaluable result like rebuilding the federal-tribal agency and trust in resource management (Stevenson,2006).

Making sound resource decisions requires having details on the volume of available resources, rate of harvest, and using the best available knowledge, both indigenous and science. Reporting of subsistence harvest of fish in the Kuskokwim Area does not cover the entire region where subsistence fishing takes place (Fall et al., 2016: KRIFTC, 2020). This incomplete record raises doubts about the accuracy of management decisions (Raymond-Yakoubian et al., 2017). Limiting harvest monitoring and its incidental opportunities like seasonal employments to residents from the lower Kuskokwim River Communities where most harvest monitoring are situated may generate tension and internal frictions between communities that feel underrepresented or not opportune to enjoy the same opportunities.

In 2017, Ban et al., suggested, “managers incorporating the interconnectivity of indigenous worldviews shared by science” into decisions and to apply “indigenous knowledge in marine spatial planning, and mapping protected areas”. Imbibing the use of indigenous knowledge and local content as suggested makes resource management policies more robust (Stevenson, 2006), effective, and responsive to suit the needs of local communities.

Similarly, Donkersloot et al., 2020 (a) stress the need to ensure that policymakers and managers do not suppress indigenous expertise and knowledge in resource co-management through decision-making. On the contrary, the environmental assessment such as the Rapid Ecoregional Assessment Report on the Yukon Lowlands and Kuskokwim Mountains (2014) that form federal land management and decision-making does not include input from indigenous peoples within these regions.

The implication of not incorporating indigenous knowledge into policies and decision-making, as evidenced with the management of Kuskokwim fisheries before the KRITFC was

involved in 2016, is a tactic used by policymakers and managers to silence, suppress and impose rules on Natives Alaskans. In 2017, Raymond-Yakoubian et al., suggested creating an indicator or a mechanism to measure or evaluate the incorporation and use of indigenous subsistence data, knowledge, and information in federal-tribal resource arrangements. By tracking progress on the use of indigenous knowledge and data, it possible to ascertain if, and to what extent resource policies and its decision processes incorporate input from Native Alaskans (Chris McDevitt, 2018; Donoghue et al., 2010).

1.5 Outline of the chapters

The study presents the analysis over five chapters. The introduction chapter explains how co-management with indigenous peoples in the United States has evolved, and the basic structure of co-management on the Kuskokwim River Delta. In addition, the research method and conceptual framework is presented. Chapter two gives descriptive details of the MOU, compares the MOU with five other federal-tribal co-management agreements in the United States, and highlights some of the guidelines that regulate government to government relationship between federal agencies and tribal organizations.

Chapter three discusses the implementation of the MOU to ascertain whether the parties are abiding by the terms on paper. The study uses two yardsticks to evaluate the implementation of the MOU; the first examines how the FWS treats the subsistence data and information it receives from the KRITFC, while the second investigates if consultation in resource collaboration and decision-making complies with the envision of the concept under the MOU.

Chapter four follow up with an analysis and discussion on the issues emanating from implementing the MOU. For instance, if one party suffers severe consequences by implementing the MOU due to non-compliance or acting in bad faith by the other party, what should the aggrieved party do? Chapter five concludes the study by restating the conclusions of the previous chapters and linking them to the broader concept of resource co-management involving indigenous peoples.

Chapter 2: An Overview and Description of the Memorandum of Understanding (MOU)

When a written document establishes or regulates a relationship's conduct, the content of such a document is fundamental (Diamond et al., 2013) to understand how the association operates. Implementing resource collaboration or co-management where parties responsibilities are described precisely is less complicated ((Donoghue et al., 2010). Drawing from the MOU, components of co-management present therein which I use to analyze the relationship are the purpose of the relationship, the goals of the parties and the scope of operation. Other components the chapter presents include the mode of renewal and termination, the funding provisions, and the requirements for exchange of information, consultation, negotiation, and dispute resolution. These components of co-management present in the MOU that I analyzed in this chapter is compared with five other co-management agreements in the United States.

2.1 Purpose of the Memorandum of Understanding

The desire to bring fish management in the Kuskokwim River Delta closer to Native Alaskans is of utmost importance to building trust and partnership with tribes and tribal institutions (Donoghue et al. 2010; Loring & Gerlach, 2010). To this end, the purpose of the cooperative agreement to “meaningfully integrate the Kuskokwim tribes and federally qualified resource users into decision-making” and to provide a “meaningful role for the Kuskokwim River Inter-tribal Fish Commission in the federal subsistence management”. By offering a route to create defined role for the KRITFC into the management of Kuskokwim fisheries, the MOU brings resource management and decision-making closer to Native Alaskans.

No doubt, it is not practical to discuss natural resource management in isolation from other issues such as resource health (Metcalf & Robards, 2008) which may impede management goals (Loring & Gerlach, 2010). The FWS and DOI share a vision and understanding that conserving fish and fish habitats are essential pathways to promoting stock health. Combining these three things conservation, rebuilding healthy stocks and fish habitat restoration through coordinated management should make securing the continuation of subsistence fishing opportunities for indigenous peoples in the Kuskokwim realizable.

2.2 Scope of management operation and coverage area under the agreement

Due to the need to minimize the possibilities of running into creeping jurisdiction with State of Alaska resource management agencies, the Kuskokwim River delimitation into federal and state management zones is unavoidable. The MOU is restricted to collaboration on subsistence fisheries management in the portion of the Kuskokwim River that falls under federal control. Integrating the KRITFC into the Federal Subsistence Management Program (FSMP) is a priority under the MOU; Fig. 1 illustrates the administrative division of Alaska into regional councils under the FSMP, including the Kuskokwim Area within the Region 5 (Yukon-Kuskokwim Region).

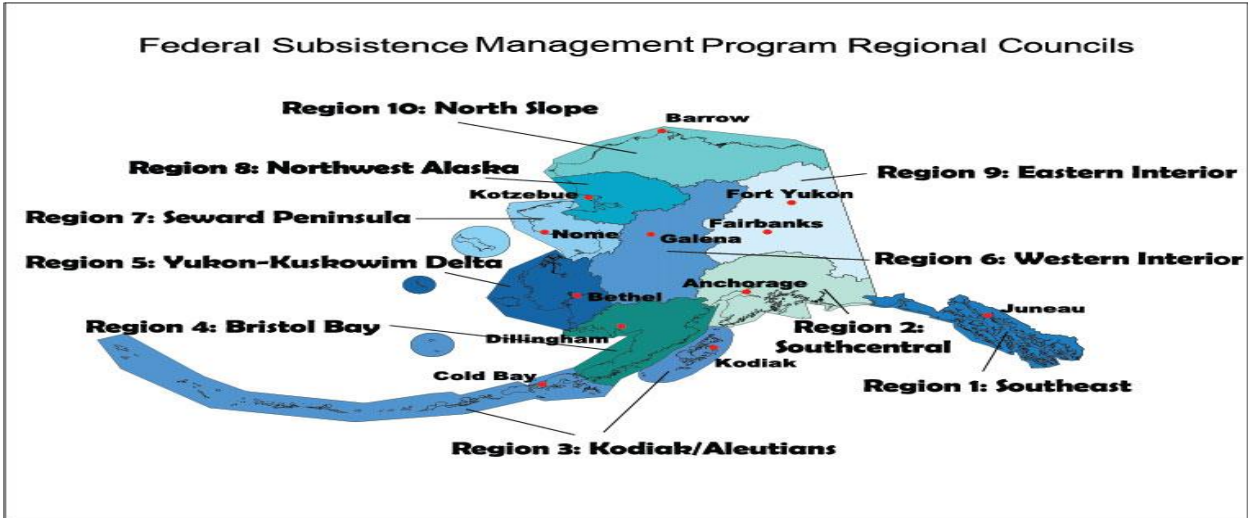


Figure 1

Source: US Department of Interior

2.3 An Overview of Decision-Making and Institutions

The partnership to manage subsistence fisheries could be pretty broad, but the MOU concentrates on preseason and in-season decisions. Preseason management decisions would include deliberations on regulation, developing management actions plan and strategies, setting preseason harvest quota using forecast, designing models based on available data before the arrival of the fishing season (Michielsens & Cave, 2018). On the other hand, in-season decisions include gathering data on migrating fishes during the peak migration period, estimating the run size, or documenting the number of catches made during the flight migration (Michielsens & Cave, 2018).

Fish management as a continuous process, occurs both during the preseason and in-season; therefore, sharing data, exchanging information occur all year-round. Managers test the efficacy

of preseason forecast/decisions in the in-season by weighing preseason predictions/forecast with in-season reality. (Michielsens & Cave, 2018) Thus, sound resource decisions consider and weigh preseason forecasts against in-season data and adjust decisions to prevent over-exploitation or under-utilization of resources.

As highlighted above, the decision-making processes in fisheries management is a lengthy one that takes place all year-round and occurs in varied forms such as research, joint sessions, meetings, conferences where information and data are exchanged between the parties back and forth. Planning and coordinating management actions and strategies, consultation/negotiating proposed decisions are critical areas in the agreement.

The MOU typifies how complex federal resource management and decision-making operate through the delegation of regulatory authority between different federal agencies. The Federal Subsistence Management Program is a sui generis multi-agency program created in 1990 through the ANILCA to manage subsistence uses and resources on federal public lands in Alaska. The Federal Subsistence Board (FSB) set up to manage the subsistence program comprises eight members. Five are directors from federal agencies, including the Bureau of Indian Affairs, and three public appointees by the Interior and Agriculture Secretaries. The three public appointees include two that represent subsistence fisheries interests alongside the Chairman of the Board. The FSB's regulatory authority to manage the subsistence program emanates from a direct delegation of power by the Secretaries of Interior and Agriculture.

Fish management in the Kuskokwim River falls under the federal subsistence program. Under the MOU, it is a requirement in Article III, under the Commission agrees para. (2) that the KRITFC recognize the delegated authority to the Refuge Manager at the Yukon Delta National Wildlife Refuge, the federal in-season manager. The delegation of authority to the federal in-season manager include the authority to “issue emergency actions” like closure of federal public waters to all form fishing including subsistence harvest. In certain exceptional circumstances, however, the FSB can take over management of subsistence fisheries under the Federal Subsistence Management Program.

As a matter of practice, the FSB may on its own and at any time, delegate or defer its management authority to a third party outside the MOU. For instance, in a situation of abundance where it is no longer necessary to implement subsistence priority for Native

Alaskans or when the escapement goals have been reached. The FSB at times delegate or defer its management of fisheries in federal waters to the State of Alaska (Keeping What You Catch: Promoting Subsistence Activities in Native Communities, 2018).

The Kuskokwim river fish management falls under the federal subsistence program. Under the MOU, the FWS may delegate its in-season fisheries management authority to the in-season manager. The manager of the Yukon Delta National Wildlife Refuge (YDNWLR) is the recipient of this authority. Except for exceptional situations such as when the FSB steps in personally to take over the management of subsistence fisheries in the Kuskokwim river to implement subsistence priority under the circumstances of necessity or when fish stocks are at critically low-levels, in-season management authority remains either with the Yukon-Delta National Wildlife Refuge (YDNWLR) manager or the Alaska Department of Fish and Game.

In laying the foundational structure for co-management, Art. III of the MOU under the section the parties mutually agree Para. (1) urges the parties to year-round engagement in “consultation and collaboration”, to “coordinate planning for management actions” and to “facilitate a unified management strategy informed by traditional ways of knowing and science”. Following the laid down practice in implementing the MOU, the federal in-season manager should consult and negotiate with the KRITFC’s designated in-season consultation committee (See Para. (6). The KRITFC in-season consultation committees comprise of four tribal in-season managers, who are experts in traditional knowledge and fisheries nominated by riverine communities to reflect the geographical diversity of the Kuskokwim River Watershed.

It is a requirement that the Federal in-season manager and the KRITFC “negotiate for the purpose of striving to reach consensus on in-season decisions” See Art. III under the parties mutually agree Para. (5). In the event of the failure to reach a consensus, the in-season manager or KRITFC may request a leadership conference or meeting to resolve contentious issues. Interestingly, the parties acknowledge under Art. III of the parties mutually agree Para. (3) that necessity of timely decision-making in in-season fisheries management may warrant excusing the requirement to negotiate to reach consensus in which case, unilateral decisions or actions of the Federal in-season managers made in good faith or on just grounds are permissible.

The MOU vests some discretionary decision-making powers in federal agencies; the federal in-season manager can issue special actions (injunction-like decisions) or make

emergency requests to the Federal Subsistence Board when the Federal in-season manager and the KRITFC cannot agree on crucial in-season decisions. However, the KRITFC may as well, on its own, submit a written request to the FSB to have a second look at a proposed decision of the in-season manager before the decision is effectuated. Although the FSB is a federal agency, it is expected to serve under the MOU as an umpire helping to ensure balance in the relationship between the FWS and KRITFC.

2.3.1 Kuskokwim River Inter-tribal Fish Commission

Having discussed decision-making under the MOU, this subsection briefly describes the institutions that make decisions under the MOU. The KRITFC is not a decision-making body per se; instead, it functions as an advisory body whose responsibility under the cooperation agreement is to: Provide data to the FWS, notify the river villages about the in-season plan and management actions, consult with the FWS to collaboratively manage fisheries, and share information with its members and other institutions. KRITFC is self-funded and relies on funding from grants, donations, and private funding. At their discretion, the FWS and the DOI could offer cooperative financing for the capacity building based on funds at their disposal. Both the FWS and DOI as federally funded bodies can individually or collectively finance collaborative projects with the KRITFC.

2.3.2 U S Fisheries and Wildlife Services

The FWS exercise decision-making roles that include consulting with KRITFC on collaborative fisheries management decisions, exchanging information, and work collaboratively to develop and implement fishery management programs and projects in areas such as research, monitoring, harvest survey, subsistence studies, test fisheries, etc.) Although not specified in the agreement, FSB can, when demanded, delegate its managerial responsibilities to an in-season manager and the State of Alaska.

2.3.3 U S Department of Interior (DOI)

The DOI's role is to “manage subsistence uses and resources on federal land in Alaska” Concerning the Cooperation Agreement, this role translates to managing subsistence uses and fisheries in the portion of the Kuskokwim River that falls under federal jurisdiction. The DOI under the MOU, can delegate its authority to the Federal Subsistence Board. Also, the FSB can, in turn, delegate regulatory authority to the Federal in-season manager of the Yukon Delta

National Wildlife Refuge. Figure 2 below shows a diagrammatic representation of the relationship and institutional framework within the MOU.

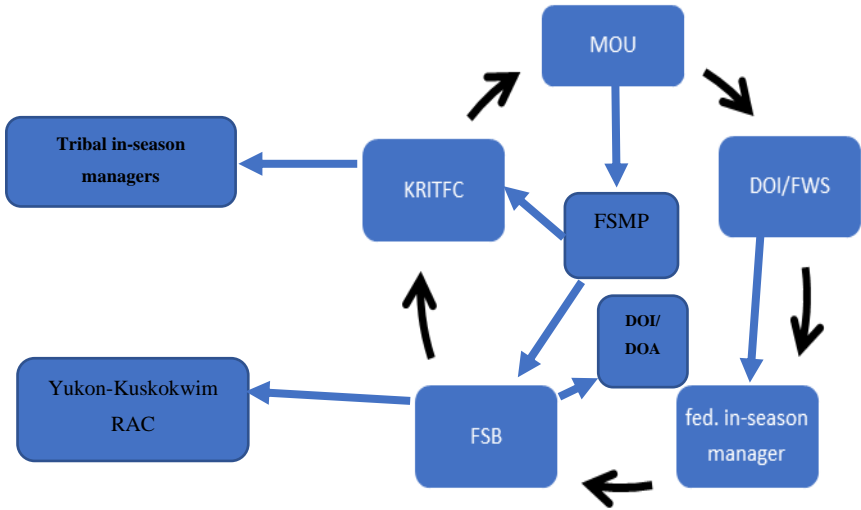


Figure 2

2.3.4 Federal Subsistence Board

To begin with, the authority to manage fish and wildlife for subsistence uses on Federal public lands and waters in Alaska is delegated to the FSB by the Secretaries of Interior and Agriculture. In terms of the composition of the FSB, the FWS Director is one of the four directors from federal agencies represented in the seven-man board. The other three are public members appointed by the Secretaries of Interior and Agriculture. FSB's power to manage fish and wildlife under the federal subsistence program is not an absolute one because the board's decision cannot extend beyond the scope of the power delegated to it to do so.

2.4 Exchange of Information and Data

The agreement requires that before making a decision, the parties exchange data and information at the "earliest possible stage" and only thereafter initiate a consultation on any proposed decision. Exchanging information and data at the earliest possible stage is suitable for sound and timely decision-making (Michielsens & Cave, 2018). The practice of exchanging information and data between the parties promotes transparency (Donoghue et al., 2013), improves communication (Metcalf & Robards, 2008) and accountability (Nie, 2008).

Regarding in-season fisheries management decision, the MOU urges the federal in-season manager to consult with the KRITFC for “collaborative fisheries management

decisions.” Furthermore, the MOU requires that fisheries management decisions should include the information and strategies approved by the parties, as depict how traditional knowledge and science integrate into the decision. The latter provision requires documenting what and how knowledge systems inform management decisions in natural resource management (Metcalf & Robards, 2008). Although, the agreement requires that parties document the use of traditional knowledge in decision-making, but it fails to specify how to fulfill this objective or what to do if one party fails to do so.

2.5 Developing management plans and actions

The agreement urges the parties to harmonize management actions and techniques and ensure that biological, ecological, traditional, and science knowledge blend into both processes. Even when a contract exists between the parties, the relative power and preferences may, in practice, determine what and whose opinions count in formulating action plans and management strategies (Chris McDevitt, 2018). Good communication between collaborating parties facilitates harmonizing resource strategies and actions (Donoghue et al., 2010). The limited influence Native Alaskans have in resource management and decision-making is further illustrated by the fact that Native representation is in the minority regarding the FSB and that the KRITFC functions in a merely advisory capacity to the Federal in-season manager.

The MOU, compared with other federal-tribal cooperative agreements (NOAA-AEWC, NMFS-ABWC, NMFS-AMMC, NMFS-ISC, and NMFS-ACSPI) is identical in most areas as these agreements offer minor decision-making role to tribal organizations, similar to the role offered the KRITFC in Kuskokwim river subsistence fisheries management (See Appendix 1). However, the agreement between NOAA-AEWC agreement stand out in two areas decision-making and dispute resolution. By handing in-season managerial role to AEWC, AEWC’s Whale Captains could self-plan and organize hunting within communities based on jointly agreed quotas. Also, the AEWC enforce and monitor harvest within communities, and report within thirty days to NOAA, of any landing or striking of whales. See Item 5 in Appendix 1.

The MOU does not make provision for a co-management committee to manage harvest, plan and coordinate management activities, the features are common in other agreements compared (See Item 9 in Appendix 10) with the exception of the NOAA-AEWC where key in-season hunting decisions rests with AEWC’s Whale Captains. Nonetheless, the MOU recommends establishing a Technical Advisory Board (TAB) to handle related issues regarding

assembling strategies, issues, actions, knowledge, and policies. The TAB, however, has not been constituted since the inception of the MOU.

2.6 Communication and Outreach

The MOU requires that parties notify and communicate with one another promptly of discussions with third parties agencies and provide a written summary of the information exchanged. Compared with other similar agreements discussed, only the MOU requires documenting and reporting communication with third parties. Importantly, communication and outreach make it easy to disseminate information, build confidence and trust between the parties and their respective constituencies (Loring & Gerlach, 2010), and with third parties of interest.

Emphasis on formal and informal communication between the parties is essential to facilitate decision-making and knowledge sharing. Moreover, maintaining joint forums (committees and sub-committees) that allow parties to work together as the MOU requires helps build a robust process for evaluating proposals, regulations, plans, strategies, policies, subsistence use, fish management, and conservation in the Kuskokwim River Delta.

2.7 Consultation and Negotiation

Consultation and negotiation are embedded processes in cooperative fisheries management, as shown under the MOU. Article 3 paragraph 5 of the MOU enjoin parties to “consult, collaborate, and negotiate with an open mind and in good faith”. Interestingly, the MOU enjoins the parties consultation between the parties should be steered towards reaching consensual decisions. Consultation and negotiation to reach in-season fisheries decisions by a consensus model, agrees with the Qasiq- a Yup'ik problem-solving framework, and the Qasiq as well aligns with federal agencies operational leadership collaborative decision-making framework (The State of Our Salmon: A Review of the Science and Data Informing the Management of Alaska's Salmon Fisheries, 2018).

As a matter of official practice to maintain the government-government relationship between the federal government and federally recognized tribes as nations within the United States, it is incumbent that federal agencies have a structured mechanism to consult and dialogue with tribes before making decisions that could severely affect their interests (See Executive Order 13175 "Consultation and Coordination with Indian Tribal Governments."

Through meaningful engagement in the collaborative fisheries management, the KRIFTC is charged in Article 3 of the MOU to “designate a manageable size in-season consultation committee” that reflects the diversity of the Kuskokwim tribes and the villages within the Kuskokwim River Delta. Furthermore, the KRIFTC must maintain communication with the federal managers and pass on the information about 'management actions, strategies and decisions' on fisheries matters to the Kuskokwim tribes and communities.

The KRIFTC negotiating in “good faith” to reach agreement by consensus with the Federal in-season manager on in-seasons decisions as required in the MOU is aspirational but fundamental. Other agreements compared in Appendix 1 are silent on this requirement (See Appendix 1 Section 6), except for the NOAA-AEWC agreement which calls for an annual negotiation to set harvest quota. Indeed, the MOU call for all-year-round collaboration and coordination makes it possible for continuing discussions on crucial issues and matters beyond in-season fisheries management.

2.8 Overcoming Disagreement

In the aspect of dispute settlement, the NOAA-AEWC is unique being the only agreement that offer the option of referring disputes that parties cannot resolve mutually to an administrative law judge, under a trial-type administrative proceeding. However, if a party is not satisfied with the decision of an administrative proceeding, a further appeal can be made to the Administrator of the NOAA (See Appendix 1 Section 7). The MOU and other agreements compared rely on mechanisms within the relationship to resolve disputes.

In circumstances where the parties cannot reach agreement on in-season management decisions, the KRIFTC can, under Article 3 paragraph 5 of the MOU, request a conference call or meeting with the head of any of the management agencies (FWS, DOI, OSM, in-season manager and the Bureau of Indian Affairs). The rationale of the meeting is to assemble knowledge experts and policymakers to revisit the contentious issues to find a compromise to reach an agreement.

Besides calling for a mandatory meeting, submitting a special action request is another option available under the MOU. While the KRIFTC may send a special action request to the FWS to address an issue of concern, both the KRIFTC and FWS may submit special action requests to the Federal Subsistence Board. The FSB may further review the contentious issues

arising out of in-season fisheries management decisions and take decisive actions to restore normalcy. Unlike the MOU, the NOAA-AEWC cooperative agreement offers a one-time opportunity to negotiate bowhead quota in the last season of the previous year; this, however, seems rigid compared to the flexible alternatives to consider and negotiate on different issues at different times of the year under the MOU.

The MOU, unlike other agreements compared in this chapter, does not make provision for a co-management committee; as such, the mechanism for resolving management-related disagreements revolves around the parties and institutions within the relationship. Although the proposal to establish the Technical Advisory Board envisaged under the MOU is underway, the TAB is to function in a co-management board-like capacity to integrate local policies, ideas, and knowledge with science, not to resolve disagreements.

2.9 Interacting with third party and the limit on third-party relationship

Despite not being a party to the MOU, Article 3 paragraph 10 of the MOU recognizes the need for federal managers to “encourage and seek participation with Alaskan State fisheries agencies in the consultation and collaboration process”. The MOU contains special provisions regarding third-party interaction compared to other agreements NOAA-AEWC, NMFS-ABWC, NMFS-AMMC, NMFS-ISC and NMFS-ACSPI (See Appendix 1 Section 8). While other agreements are pretty restrictive, the MOU, in general, inspires the parties to seek and encourage participation, consultation, and collaboration with Alaskan State managers. The apparent reason for the flexibility in third-party interaction is that it is practically impossible to operate the MOU without direct collaboration with the State of Alaska. Since fish do not respect borders set by humans, collaborating with the State of Alaska that controls sixty percent of the Kuskokwim river and fisheries therein (those areas outside federal jurisdiction) is a necessity.

2.10 Funding provisions, Establishment, Renewal, and Dissolution of the MOU

In terms of funding, the MOU like all five agreements (NOOA-AEWC, NMFS-ABWC, NMFS-AMMC, NMFS-ISC and NMFS-ACSPI) compared in this chapter, requires that parties bear full cost of implementing the agreement and associated expenses (See Appendix 1 Section 4). However, nothing stops the parties from undertaking and executing joint projects financed in part or whole by one or all the parties (See Article III Para. 9 of the MOU in areas of mutual agreement section). Except for specific assistance funds to support particular works (See Article

III para. 4 of the MOU in the service agrees section) within tribal organizations, the KRIFTC's funds are privately sourced while the FWS and DOI are federally funded agencies.

2.11 Establishment, Renewal, and Dissolution of the Relationship

The MOU is “effective upon the parties signature” and remains in force until either of the parties terminates via written notice (See paragraph 2 Article IV). Upon serving the notice of termination, which must have been given sixty days in advance, the agreement mandates the parties to meet and discuss the reason for the withdrawal notice to find means to settle their differences, if possible, instead of terminating the MOU. The agreement makes provision for re-evaluation by the parties every two years (para. 6 of Art. IV). Any significant change(s) in the scope of federal public lands or tribal lands in the Kuskokwim region that is likely or capable of altering the parties' position may call for re-evaluating the agreement accordingly.

Compared with other cooperative agreements in this chapter, the MOU requires that a party willing to terminate the relationship should notify other parties of his intent in writing within sixty days. Similarly, the NMFS-ABWC, NMFS-AMMC, NMFS-ISC and NMFS-ACSPI agreement all require forty-five day notice in writing to discontinue the agreement (See Appendix 1 Section 10) However, the NOAA-AEWC agreement, contains no specific provision of a written notice or time limit to notify the other parties of intent to discontinue the agreement. The grace period of 60 days period under the MOU allows the parties to resolve outstanding issues and resort to termination only as a last resort.

2.12 Comparing the MOU with similar agreements between federal agencies

In comparison, the MOU with similar resource management cooperative agreements involving indigenous peoples in the United States reveals a paternalized trend and style of operation within federal agencies. The language of the deals are similar; similarly, these agreements hardly create relationships with equal powers or provide for a co-management board with partners having equal decision-making powers. Furthermore, drawing a comparison between the MOU and selected federal-tribal cooperative agreements in the United States as the description and analysis in Appendix 1 shows many similarities and minimal differences in the mode of operation, and the roles assigned to tribal institutions as partners in natural resource management. Furthermore, from the analysis and description of the MOU and the five selected co-management agreements, I deduce the similarities keyed into these agreement are deliberate,

to make their implementation fit within the federal mechanisms of management and decision-making.

Aside being one of the oldest among the agreements compared, the NOAA-AEWC agreement stands out in two areas deconcentrating managerial authority, and dispute resolution. The NOAA-AEWC agreement went a step further by providing an opportunity to refer disputes to an administrative law judge under a trial-like administrative proceeding, and allot more decision-making and management functions to the AEWC to oversee harvest (compared with the roles assigned to tribal institutions under other agreements). It is pertinent to note the prevailing situation at the of making agreement, the subject-matter of the relationship and federal interest in the subject-matter, the federal agencies involved, and tribal institutions ability to secure a stronger position in the negotiation of an agreement, account for the minor variations in co-management agreements concluded with federal agencies and tribes in the United States.

From the table description in Appendix 1, it is indisputable that tribal institutions share a role in decision-making and management in minor areas. Still, major resource management oversights rest with the federal agencies. The Fish and Wildlife Services and the Federal Subsistence Board having the upper hand in management and decision-making under the MOU should not come as a surprise. Although the KRITFC participates in meetings to deliberate and negotiate with federal managers on any proposed decisions or policies, implementing the MOU allows the KRITFC to interact with federal agencies, to influence or shape subsistence fisheries management and decisions.

Chapter 3 Result of Implementing the Cooperative Agreement on the Kuskokwim River Delta

This chapter presents how the FWS uses the information and data KRITFC provides in its fisheries management decisions. The integration of subsistence data into fisheries management decisions could explain how tribal information contributes to fisheries decision-making processes in the Kuskokwim River Delta. Furthermore, the chapter evaluates consultation between the parties as the MOU aims to determine if the parties are complying with the MOU.

3.1 Kuskokwim River Community Based Harvest Monitoring Program

When it comes to bringing decision-making to the doorsteps of Native Alaskans, the community-based harvest monitoring program is vital. Harvest monitoring allows for grassroots participation and contribution to the management of subsistence fisheries in the Kuskokwim River Delta. Native fishers and families that participate in the community-based harvest monitoring surveys could share field experiences and provide priceless information and data needed by policy experts and managers to formulate actions, plans and make robust decisions. Since modern fisheries management is rooted in western theories and concepts that favor using tools artificial tools like modeling and forecasts to generate decisions, harvest monitoring information and data, help demystify fictions from facts by providing statistical records (count in numbers) and qualitative information that non-specialists can understand in plain language.

The Bering Sea Fishermen Association (BSFA) initiates the Kuskokwim River Community Based Harvest Monitoring Program (CBHMP), and the KRITFC collaborates with the BSFA to manage the program. It enables paid harvest monitors to interview fishers to collect and document harvest information during in-season fish openings, then collates a great deal of the collected information (Shelden & Chavez, 2014:3). CBHMP provides information on catches from traditional fishing spots, run size, arrival time, the health of the fishes caught, types of fishes caught and gear and net types used, catch per unit effort, and biological data that include (KRIFTC, 2020a; Fall et al., 2016; KRIFTC, 2020b) the age, sex and length (ASL) of the fishes caught.

The Kuskokwim river CBHMP seasonally recruits harvest monitors locally, and most of the harvest monitors are youths recruited from Kuskokwim communities. As residents in the Kuskokwim area, harvest monitors are familiar with the fish camps and boat harbors; they also

know whom they are interviewing (Kuskokwim, 2020b), and this makes obtaining information run smoothly. However, the CBHMP is confined to significant fishing hubs in the lower Kuskokwim river communities in Bethel and its surrounding areas, where eighty percent of the entire subsistence harvest occurs. The possible reasons for siting the harvest monitoring in the Bethel area are limited operational funding, logistics constraints, and staffing shortage. Moreover, the agglomeration of subsistence fishers, higher harvest rates, and dense population compared to other areas in the Kuskokwim Delta (Carroll & Hamazaki, 2012:20), proximity to the test fishery site and sonar station justify the sitting community-based harvest monitoring in Bethel and its surrounding environ.

By and large, the community-based harvest monitoring help to fulfill the MOU's broader objective of decentralizing the management of subsistence fisheries by allowing grassroots participation. An opportunity to contribute and utilize traditional knowledge and subsistence information to manage natural resources is essential for Alaskan Natives. The community-based harvest monitoring program creates an avenue to expand fisheries research and subsistence studies envisaged in the MOU (See Art. III Para. 3 under the service agrees). Harvest monitoring data that show under harvest can be used to negotiate subsistence harvest opportunities (Staton & Coggins, 2016), an indication of improving trust and working relationship between Alaskan Natives and federal managers fisheries.

3.1.1 Mode of Operating the CBHMP

Participation in the CBHMP is voluntary and not obligatory; anyone may choose to provide harvest information or not (Staton & Coggins, 2016; KRITFC, 2020a; Carroll & Hamakazi, 2012). Harvest monitors are charged with the responsibility to interview subsistence fishers at fish camps and boat harbors and transmits the information they obtain to community-based harvest monitoring staff within twelve hours after the closure of each season opens (KRITFC, 2020b). The timely delivery of subsistence harvest information to the KRITFC for onward transmission to the FWS promotes transparency and accuracy. It also complies with the MOU provision on "sharing information at the earliest possible stage."

The CBHMP, unlike speculative tools in western fisheries management (models, forecast, sonar counts), provide factual information and evidence based on pragmatic observations that identify the type of fishes caught, size, length, age, sex, quality of catches,

and harvest efforts to land catches and numerically document subsistence harvest. Harvest information is fundamental for planning and making resource decisions (KRITFC, 2020b).

Catch per unit efforts during in-season is an essential indicator of the post-season harvest results. Any difficulty in landing catches in known traditional fishing spots, for instance, could indicate poor season runs, late arrival and even explain phenomena such as a change in fish population and distribution (Shelden & Chavez, 2014, Staton & Coggins, 2016). There is a potential bias if CBHMP captures a fraction and not the entire area where subsistence fisheries take place (Staton & Coggins, 2016). Therefore, the KRITFC needs to expand the CBHMP beyond the lower river areas to get complete data on the in-season harvest. However, such an expansion would create additional costs and staffing needs (Staton & Coggins, 2016).

3.1.2 Use of CBHMP Information and Data by the FWS

Community-based harvest data shared with the FWS also include data on species ratio and by-catch of non-target species. Providing data to the FWS on catches, including target and non-target species, could help understand broader issues that affect fisheries, such as changing migration patterns and the impact of warmer water temperature on fish mortality and survival (Stanton & Coggins, 2016, Fall et al., 2016; Shelden & Chavez, 2014). The FWS can use subsistence harvest data to analyze fish statistics by comparing run abundance against allocation to ascertain if management meets escapement targets or whether tribal members meet subsistence needs (Fall et al., 2016).

Data from the CBHMP is helping federal managers move from speculation to certainty in fisheries management. First, by eliminating the long wait until the end of the season, harvest data allow managers to better grasp the situation (Shelden & Chavez, 2014) after each fish season openings to adjust decisions when necessary; and be proactive rather than reactive in decision-making. Moreover, FWS scientists, biologists, and policymakers use subsistence harvest data to analyze fish statistics by comparing the pre-season forecast with the run abundance to balance allocations against escapement targets (KRITFC, 2020b; Fall et al., 2016).

The FWS, KRITFC, and Orutsararmiut Native Council (ONC) exchange harvest information during the fishing season and aggregate the information at the end of the season with other stakeholders, including the KRITFC, to produce post-harvest opportunity models

(KRITFC, 2020b). The ONC's harvest monitoring program situated at Bethel is a collaboration project between the ONC and the Alaska Department of Fish and Game (ADFG) funded by the State of Alaska (Shelden & Chavez, 2014, KRSMP, 2019:6; Carroll & Hamazaki, 2012:1) Exchanging subsistence fisheries information between, federal, state, and tribal institutions is a big boost for consolidating and aggregating data for decision-making by the different stakeholders involved in Kuskokwim fisheries management.

The data and information KRIFTC provides to the FWS are crucial resources for sound and robust fisheries management decisions. Salmon harvest monitoring programs document harvest in numbers, fishing time, and tools used in harvesting. This way, federal managers get to know more about fishing methods, equipment used to harvest within different communities along the Kuskokwim River delta. Federal managers consider traditional harvest methods in use (Shelden & Chavez, 2014) before setting new standards on approved fishing gear or nets.

In addition, the CBHMP reveals vital information that federal managers use to determine whether tribal members are facing food insecurities or struggling to meet subsistence needs (Loring & Gerlach, 2015, Starkey, 2016:323). In a situation where the season runs exceed pre-season forecast, it may be necessary to restrict subsistence harvest to prevent over-fishing of the target as well as non-target species by adjusting the number of openings, fishing equipment, and the length of time allotted for harvesting (The State of Our Salmon: A Review of the Science and Data Informing the Management of Alaska's Salmon Fisheries, 2018; Staton & Coggins, 2016; KRSMP 2019:3; Carroll & Hamazaki, 2012;18-19). Conversely, CBHMP information that documents poor runs or under harvest could persuade federal managers to create harvest openings for subsistence users (Fall et al., 2016; Raymond-Yakoubian et al., 2017) so long as such openings are not inimical to meeting management's escapement goals (KRSMP 2017:3, KRSMP, 2019:5; Carroll & Hamazaki, 2012).

Documenting subsistence harvest records and the post-season harvest reports by management and tribal institutions capture the current season management activities, but such records also become documentary archives for future use. When combined with pre-season forecasts and resource models, the post-season harvest opportunity model developed from subsistence harvest information serves as foundational data to inform next-season fish decision-

making (KRITFC, 2020b). Thus, harvest monitoring information becomes input/motivation for current management actions and precedents for future decisions (KRSMP, 2019:7; Starkey, 2016:323; Carroll & Hamazaki, 2012).

In summary, the CBHMP offers information that federal managers can combine with science data to monitor and evaluate stock abundance and recovery. Documenting subsistence takings, the volume of landings and efforts in landing catches are reflexive of resource availability (Carroll & Hamakazi, 2012:7, 10; KRSMP, 2019:5). Resource availability could be monitored over time to track successes of subsistence harvesters year to year, stock rebuilding progress, and results (Fall et al., 2016; Carroll & Hamazaki, 2012).

3.2 Expressing dissenting opinions and discontents through special action

The MOU offers a procedure through which the KRITFC can channel its grievances with the FWS, including summoning an emergency meeting with other entities or filing a special action. KRIFTC or tribal communities themselves can file special action before the FSB, challenging the decision(s) of the Federal in-season manager. The application for special action by KRIFTC must be a persuasive request that documents the alleged complaints and highlights the reasons and grounds why the request is meritorious and should worth approval by the FSB.

In the case of NINILCHIK TRADITIONAL COUNCIL VS. TIM TOWARAK 2016 (2016 WL 1559122), the District Court ruled that the FSB "violated 50 CFR § 100.10(d)(6) by not establishing "frameworks" to guide the delegation of its authority to the federal in-season manager and faulted the in-season manager's failure to decide its Kenai gillnet permit application violates 50 CFR § 100.27(e)(10)(iv)(J)'. The implication of the verdict in the NINILCHIK's case is that even when the mechanism for expressing dissenting opinions and discontents in resource agreements are inadequate, the exclusion of judicial remedies in comanagement agreements (See Appendix 1 Section 7) does not preclude an aggrieved party from pursuing legal actions in court.

3.3 Consultation in Fish Management and Decision Processes

The MOU lays down a framework for consultation that requires that federal managers or agents to whom the federal authority to act in the management of subsistence fisheries has been delegated should consult with the KRITFC. Along with this reasoning, the FSB, the FWS, and the Federal in-season manager consulting and negotiating on in-season decisions with the KRITFC before making decisions meets the consultation requirement of the MOU

(YKDSRAC, 2019; KRSMP, 2017). See Appendix 2 for a list of special actions approved by the FSB between 2018-2020, indicating consultation with the KRITFC as required under MOU.

The FWS and the Federal in-season manager usually consult with the KRITFC on in-season management through scheduled weekly in-season meetings and other forums that may be necessary to effectuate consultation. However, there is some evidence that the FWS or the Federal in-season manager may not always consult properly on in-season management issues. For instance, in situations that warrant emergency actions, consultation may be bypassed without violating the consultation required under the MOU.

Another fundamental issue with consultation under the MOU arises when the FSB delegate or defer management authority in federal waters to the State of Alaska management agencies. In such situations, negotiating with the KRITFC may be bypassed entirely (Raymond-Yakoubian et al., 2017; Mc Devitt, 2018) since the State of Alaska and its agencies would not enforce subsistence priority, neither are they obliged to consult with the KRITFC before making management decisions. The wave of filing applications for federal actions through the KRITFC/and or by aggrieved community representatives point at the insufficiency of consultation in addressing the underlying issues such as loose protection and marginalization of Native Alaskans in decisions-making (Raymond-Yakoubian, 2017:120-121, *Keeping What You Catch: Promoting Subsistence Activities in Native Communities*, 2018).

Chapter 4 Discussion

The chapter discusses issues emanating from the primary research questions and themes from previous chapters as it concerns implementing the MOU. In particular, the following goals improving federal-tribal trust, weighing on tribal role in the management of subsistence fisheries, safeguarding subsistence harvest, encouraging the development and use of tribal information and knowledge in resource decisions, and integrating the KRITFC and native voices in the federal subsistence management system., are analyzed.

4.1 Building trust and rebuilding depleted Kuskokwim fish stocks

In co-management, one of the vital elements that makes collaboration successful is that the parties trust one another. Complete lack of trust amidst declining fish stocks, growing food insecurities, and sidelining Kuskokwim tribes in decision-making were among the arrays of issues leading to the formation of KRITFC (Cruickshank et al., 2019; Voinot-Baron, 2019; Brelsford, 2018; Carothers et al., 2021; Stephen & Black, 2019). In the wake of implementing the MOU, have trust between federal managers and Kuskokwim tribes improved?

Drawing an inference from the perceptions about the credibility of the CBHMP, the acceptability of harvest information within lower Kuskokwim communities, and its subsequent use by federal managers to balance in-season fisheries decisions show a drastic improvement of trust between the parties as it concern federal-tribal resource management. Staton & Coggins (2016) found that the difficulty in accessing harvest data from remote Alaskan villages is an obstacle to getting complete data on subsistence harvest within the KRD. Nevertheless, extending the harvest monitoring program to the entire Kuskokwim Area is necessary to allow upper and middle river communities a voice in-season management decisions (Fall et al., 2016; Carroll & Hamakazi, 2012:12, 20) because subsistence harvest data play an invaluable role in allocating opportunities during the fishing season (KRSMP, 2019: Carroll & Hamakazi, 2012).

Improving trust is an essential step to recalibrating federal-tribal relationship 'as trust lubricate cooperation' in resource co-management (Pretty & Smith, 2004:633), gaining stakeholder trust would be more fruitful if collaboration based on trust yield mutual benefits for the parties (Starkey, 2016: 323-324; Loring & Gerlach, 2015). Does this bring us to discuss what benefits and costs are accruing to the parties by implementing the MOU? If meeting escapement targets and subsistence needs are the cornerstones of federal-tribal resource co-

management, then stabilizing fish population and rebuilding depleted stock is crucial to achieving both goals (Fall et al., 2016; KRSMP, 2019:57).

Rebuilding depleted fish stocks, attaining management escapement goals while ensuring tribes harvest to meet subsistence needs are complex and interwoven issues (Mc Devitt, 2018; Sheldon & Chavez, 2014). Under federal-tribal co-management, prioritizing escapement targets yields fruits as fish populations have been improving in the Kuskokwim river but at a slow rate (KRITFC, 2020a; 2020c; Shlinder et al., 2013). Except for 2019, however, which turns out to be a year of abundance in the last five years in many communities, subsistence harvesters are not attaining subsistence targets (Connors et al., 2020; Carroll & Hamakazi, 2012:9).

4.2 Expanding Institutional Capacity Incorporating Deferring Voices in Fisheries Management

When the KRIFTC began in 2015, it had to build its institutional structure from scratch. Five years after implementing the federal-tribal co-management, the KRIFTC is evolving into an institution with growing human and institutional capacity (KRIFTC, 2020a). While the demands of keeping up with roles have increased since the MOU become operational, this expansion warrants equipping the KRIFTC with human resources and funding to adapt to new challenges as it strives continually in bringing subsistence issues and native voice from the margin to the forefront of fisheries management (Starkey, 2016:324).

Native Alaskans presence and voice are no longer invisible in Kuskokwim river fish management. KRIFTC collaborating with federal managers has created a platform for Alaskan Natives to contribute indigenous values, know-how, expertise, and worldviews into resource planning and decision-making (Walsey & Brewer, 2018; Starkey, 2016). Moreover, consulting and deliberating with the KRIFTC in fisheries matters bring importance to tribes before federal managers (Starkey, 2016:322; KRSMP 2018:6). Indeed, the weight attached to the native voice in Kuskokwim fisheries management that had been previously devoid of tribal inclusion (Nadadsy, 2006:171) is groundbreaking (Starkey, 2016:321).

4.2.1 Traditional Knowledge Integration

One area that needs significant improvement is integrating traditional knowledge into resource management decisions without separating traditional knowledge from its holders. Traditional knowledge of fisheries varies within Kuskokwim communities, though it is holistic and emphasizes the social inter-connectedness (Voinot-Baron, 2020; Raymond-Yakoubian et

al., 2017) between humans and the environment. Federal fisheries management decisions and policies are inspired by metrics and western-science principles as such, validating traditional knowledge (Raymond-Yakoubian et al., 2017). Simply "cherry-picking" aspects of traditional knowledge that can be proven and tested (Stevenson, 2006; Connors et al., 2020) is stalling proper knowledge integration.

Traditional knowledge influencing science principles and management outcomes is possible but rarely occurs in practice (Raymond-Yakoubian et al., 2017; Chris McDevitt, 2018; Stevenson, 2006). As evidenced from this study, the subsistence harvest information that KRIFTC provides to the FWS is quite resourceful, and federal managers have relied on this information to verify, review, and adjust its decisions with precision and more accurately. It would make more sense that the managers use the data and information KRIFTC to reflect and not deflect tribal realities.

4.2.2 Challenge of SDM

Notably, the FWS adopts structured decision-making (SDM) to allow the agency to simplify management by "organizing decision-making into series of logical steps" (Gregory et al., 2013:1213). Federal managers' use of structured decision-making compartmentalizes resource management to advance the centrality of science and foist western bureaucracy and ideals on tribal partners. This outcome questions the very idea for instituting federal-tribal co-management (Stevenson, 2006). If co-management decisions systemically support imposing western values, knowledge, and ideas on tribal institutions (Ristroph, 2019; Starkey, 2016), the opportunity to meaningfully integrate Alaskan Natives and traditional knowledge into resource management becomes highly improbable.

4.3 Preserving the subsistence harvest

On the one hand, the United States government has a broader objective to deter the over-exploitation and wastage of common-pool resources; simultaneously, it must honor its obligations to preserve the subsistence harvest for Alaskan tribes in Kuskokwim fisheries. The tactical question is, whose interest is at the center of the federal-tribal fish co-management agreement? Studies found that such arrangements frequently are designed to favor public managers (Stevenson, 2006; Raymond-Yakoubian, 2017), and their implementation steered along the same path (Chris McDevitt, 2018). Federal managers equally suffer the loss of fishing royalties, which is nothing compared to the threats of starvation Native Alaskans face if they

cannot harvest meet subsistence needs (Loring & Gerlach, 2015). Understandably, conservation takes primacy over subsistence harvest, but implementing harvest restrictions without considering the dependency factors (Connors et al., 2020) is antithetical and a severe threat to the survival of resource-dependent tribal communities (Stevenson, 2006).

4.4 Decolonizing Co-management

Every relationship has its pros and cons, and this is equally true about federal-tribal co-management agreements in the United States. The fundamental discussion is, does the MOU meet the threshold of co-management? The study reveals that the MOU have put the KRITFC and Native Alaskans in a better position than they were before 2016 since it has afforded Native Alaskans an opportunity in decision thereby fulfilling both aspects of Berkes's conception of co-management as a power-sharing and as the process in the management of subsistence fisheries. Regarding Chris Mc Devitt's conception of equal partnership in management and decision-making, however, the MOU did not fulfill this requirement.

It may sound awkward but true, several elements incorporated into co-management agreements in the United States, and the mechanisms for implementing them institutionalize federal-centric power differentials. The veto provisions under the MOU and federal management practices allow managers to invoke and use veto power to achieve management's desired ends. Funding the KRITFC and assigning roles on an equal basis between federal managers and the KRITFC is an open call to decolonize the MOU as found by some critics (Stevenson, 2016; Yacoubian et al., 2017).

Chapter 5 Conclusion

Evidence from the study reveals that the MOU has introduced a purposeful role for Alaskan Natives through the KRITFC in the management of subsistence fisheries in the Kuskokwim River. By creating a concise role albeit in an advisory capacity for Native Alaskans and providing clear rules for consulting with the KRITFC on how Kuskokwim fisheries should be managed, especially during in-season, the MOU is a critical path to recalibrating federal-tribal relationship and trust in natural resource management. Implementing the MOU has translated some aspects of the intent of the ANCSA and the ANILCA into reality in areas like consulting and involving Native Alaskans in the management of subsistence resources.

Findings from this study on the first research question on how the FWS treat the information and data that it receives from the KRIFTC show that the information and data (includes traditional knowledge, perspectives, and narratives), when combined with western-scientific data, offer an invaluable supplement to making sound policies and robust resource management decisions. The FWS uses and incorporates the community-based harvest monitoring information and data to balance and adjust its decisions so far as they do not significantly contradict federal laws, policies, and evidential science.

As regards the second research question on whether consultation between the parties comply with consultation as envisaged under the MOU, drawing inference from the records that document the interactions between the parties show compliance at a satisfactory level because the parties deliberate, negotiate, notify, and review management decisions and pre-season plans during the fishing season. The prominent area that potentially affect consultation, when federal agencies delegate authority to Alaska State agencies, should be reassessed.

Furthermore, the evidence reveals that the five years of implementing the federal-tribal co-management agreement had ushered in regime stability, made managers more responsive, transparent, and accountable. Kuskokwim Tribes' role in fisheries management is concise, concrete, and better off than before the MOU came. The study concludes that implementing federal-tribal co-management through the MOU is not a perfect arrangement, though it offers some form of protection for safeguarding subsistence harvest and food security for Native Alaskans. Still, an unequal partner is better off than being the management and decision-making processes.

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Appendix

Appendix 1: Showing Descriptive Analysis of Federal-Tribal Resource Co-management Agreements in the United States

	FWS/DOI KRITFC 2016 Fish	NOOA-AEWC 1984 Bowhead whale	NMFS-ABWC 1999 Beluga whale	NMFS-AMMC 2006 Steller sea lion Harbour seal	NMFS-ISC 2006 Ring seal, Bearded seal, Ribbon seal and Spotted seal	NMFS-Aleut Community of St Paul Island (ACSPI) 2001 Fur seal
1 consultation	Yes, substantive consultation from the parties before in-season management decisions and actions	Yes, consultation on all matters in the agreement and other matters related to bowhead whales that the parties believe are suitable for consultation	Yes, consult in matters on the management and subsistence use, conservation of species and other related matters to species which either party believes are suitable for such consultation.	Routine consultation on matters related to ice seal management No media contact communication is allowed without first consulting with the other party	Routine consultation on matters related to ice seal management No media contact communication is allowed without first consulting with the other party	Routine consultation on matters related to ice seal management and conservation
2 information and data	Exchange information and data at the earliest practicable time before consultation takes place	AEWC report within 30 days or as soon as practicable data on the number of whale struck or landed at all times. Post season reports that contain biological data on each bowhead struck or landed.	Exchange and evaluate technical and non-technical information through the Co-mgt Cttee. Information is shared at the Annual meeting or any other meeting summoned by the Cttee.	Exchange and evaluate technical and non-technical information through the Co-mgt Cttee. Information is shared at the Annual meeting or any other meeting summoned by the Cttee.	Exchange and evaluate technical and non-technical information through the Co-mgt Cttee. Information is shared at the Annual meeting or any other meeting summoned by the Cttee.	Exchange and evaluate technical and non-technical information through the St Paul Island (SPI) Co-management Council. Information is shared at the Annual meeting or any other meeting summoned by the SPI Co-management Council.
3 Development and implementation of resource management projects	Partner in joint research, monitoring, harvest survey, sustainability	Maintain whaling Captain register and Captains hunt under AEWC's	Management actions and plans on species are jointly developed and reviewed by	Management actions and plans on species are jointly developed and reviewed by	Management actions and plans on species are jointly developed and reviewed by	Management actions and plans on species are jointly developed and reviewed by the

	studies, test fisheries, etc.	Management Plan.	the Co-mgt Cttee.	the AMMC Co-mgt Cttee.	the Co-mgt Cttee.	SPI Co-management Council
4 Funding	No financial commitment. KRIFTC may utilize open funding from FWS/DOI for capacity building	No financial commitment under the agreement Each party bear its own cost.	No financial commitment under the agreement Each party bear its own costs.	No financial commitment under the agreement Each party bear its own costs.	No financial commitment under the agreement Each party bear its own costs.	No financial commitment under the agreement Each party bear its own costs.
5 Mgt. decision	In minor areas shared. In major areas such as (in-season) the in-season manager makes the decision. FWS monitor and enforce harvest laws.	Shared in both minor and major areas. For example the NOAA's primary responsibility. include monitoring and enforcing federal resource management law as well as bowhead programs. Since it is the AEWC that makes the management plan, it also enforce harvest rule on its members.	Shared in both major and minor areas. NMFS retain its power to enforce provisions of the federal laws applicable to native harvest of species. AMMC regulative native harvest as agreed under the jointly approved action plan. Decision are reached by the Co-mgt. Cttee based on consensus and respect for each party. The Co-mgt. Committee function as co-board with equal representation of three members	Shared in both major and minor areas. NMFS retain its power to enforce provisions of the federal laws applicable to native harvest of species. While the ISC regulate and enforce tribal provisions during the conduct of subsistence harvest. Decisions are reached by the Co-mgt. Cttee based on consensus and respect for each party. The Co-mgt. Committee function as co-board with equal representation of three members	Shared in both major and minor areas. NMFS retain its power to enforce provisions of the federal laws applicable to native harvest of species. While the ISC regulate and enforce tribal provisions during the conduct of subsistence harvest.	Shared in both major and minor areas. NMFS retain its power to enforce provisions of the federal laws applicable to native harvest of species. While the Aleut Community of St Paul Island regulate and enforce tribal provisions during the conduct of subsistence harvest.
6. Negotiation	Negotiate in good faith and with open mind; the goal is	Annual negotiation of bowhead quota is done in the	Not mentioned under the agreement but is covered within	Not mentioned under the agreement but is covered within the	Not mentioned under the agreement but is covered within	Not mentioned under the agreement but is covered within the parties within

	consensus-based decision	fourth quarter of the preceding year.	the parties within consultation through the Co-mgt Cttee	parties within consultation through the Co-mgt Cttee	the parties within consultation through the Co-mgt Cttee	consultation through the SPI Co-mgt Council
7 Options open to resolve dispute in the event of a failure of the parties to reach consensus on in-season management decisions	KRIFTC can request for meeting or conference call, direct request for a special action to FSB, request the FSB to review an in-season decision made by the manager	Parties explore consensual resolution, if this is impossible the dispute is referred to an administrative law judge under a trial-type administrative proceeding. The decision of the administrative law judge may be appealed to the administrator of the NOAA	No major dispute between the parties is envisaged under the agreement. Thus, the agreement makes no extensive provision on how to settle complex disputes beyond the consensus and mutual respect clause in jointly reached decision.	Any disagreement that cannot be settled at operating level is reported in writing by the aggrieved party within 30 days and presented to the Co-mgt Cttee whose resolution is the final.	Any disagreement that cannot be settled at operating level is reported in writing by the aggrieved party within 30 days and presented to the Co-mgt Cttee whose resolution is the final.	Any disagreement that cannot be settled at operating level is reported in writing by the aggrieved party within 30 days and presented to the SPI Co-mgt Council for resolution by mutual consent.
8. Provision for emergency decision	Yes. If in-season manager makes decision	If there is a need to review the number of bowhead to be harvest, revision is done jointly.	Covered within the ambit of consultation. For instance, to list a species as endangered such recommendation, is preceded with consultation and joint assessment which afford parties avenue to resolve issues that may affect subsistence use and implementing the enlisting.	Covered within the ambit of consultation. For instance, to list a species as endangered such recommendation, is preceded with consultation and joint assessment which afford parties avenue to resolve issues that may affect subsistence use and implementing the enlisting.	Covered within the ambit of consultation. For instance, to list a species as endangered such recommendation, is preceded with consultation and joint assessment which afford parties avenue to resolve issues that may affect subsistence use and implementing the enlisting.	Covered within the ambit of consultation. For instance, to list a species as endangered such recommendation, is preceded with consultation and joint assessment which afford parties avenue to resolve issues that may affect subsistence use and implementing the enlisting.
8 Third party involvement	Parties to encourage and seek consultation and collaboration	None. Except if any proposed decision or action by any	None. Except if any proposed decision or action by a	None. Except if any proposed decision or action by a federal	None. Except if any proposed decision or action by a	None. Except if any proposed decision or action by a federal agency that may

	with Alaska States fisheries agencies	federal agency that may affect bowhead whale or subsistence whaling, then consulting with such an agency become necessary.	federal agency that may affect the action plan and subsistence harvesting, then consulting with such an agency become necessary.	agency that may affect the action plan and subsistence harvesting, then consulting with such an agency become necessary.	federal agency that may affect the action plan and subsistence harvesting, then consulting with such an agency become necessary.	affect the action plan and subsistence harvesting, then consulting with such an agency become necessary.
9. Co-mgt body	None	None.	Yes, the Co-Mgt Cttee	Yes, the Co-Mgt Cttee	Yes, the Co-Mgt Cttee	Yes, the SPI Co-Mgt Council
10 Renewal/Expiration of agreement	To be reviewed every two years. In the event of a party wanting to opt out, sixty-day notice must be given in writing; a meeting will be held to see if parties can address contentions without having to dissolve the agreement	Last reviewed in 2019 valid through March 31, 2026. Agreement may be amended by mutual written consent of either party	Agreement is to remain in force and subject to review by the parties not less than three years. Written notice of termination is given by either party 45 days in advance.	Agreement is to remain in force and subject to review by the parties not less than three years. Written notice of termination is given by either party 45 days in advance	Agreement is to remain in force and subject to review by the parties not less than three years. Written notice of termination is given by either party 45 days in advance.	Agreement is to remain in force and subject to review by the parties not less than three years. Written notice of termination is given by either party 45 days in advance
11 Harvest Limit	No Predetermined harvest limit. Not expressly stated but in-season manager determine harvest limit and notify KRIFTC	Harvest limit may be preset, if not then, NOAA and AEWC determine the total number of bowhead whales that may be struck year to year.	Covered in the management and action plan developed by the Co-mgt Cttee and harvest limit can be reviewed as necessary by the Cttee.	Covered in the management and action plan developed by the Co-mgt Cttee and harvest limit can be reviewed as necessary by the Co-mgt Cttee.	Covered in the management and action plan developed by the Co-mgt Cttee and harvest limit can be reviewed as necessary by the Co-mgt Cttee.	Covered in the management and action plan developed by the SPI Co-mgt Council and harvest limit can be reviewed as necessary by the Council

Prepared by Oluwatosin Abdulsalam

Appendix 2: Showing Special and Emergency Actions approved by the Federal Subsistence Board for the Kuskokwim River between 2018 and 2020 in the Yukon-Kuskokwim Regional Area Council

Special Action No.	Nature of the request approved by the Federal Subsistence Board (FSB)	Consultation with the KRIFTC in granting request Yes or No	Request Granted or Rejected
3KS 05 2020	12 hours gillnet harvest opportunity (on June 24 starting from 6 AM to 6 PM) to subsistence harvesters including these villages of Chefornak, Kip1luk, Kwigillingok, and Kolligiganak (except the Aniak Box)	Yes	Yes
3KS 03 2020	Three 12 gillnet opportunity (on June the 12, 15 and 18 starting from 6 AM to 6 PM) to subsistence harvesters including these villages of Chefornak, Kip1luk, Kwigillingok, and Kolligiganak (except the Aniak Box)	Yes	Yes
3KS 02 2020	Three 24 hours river set gillnet harvest opportunity (between June 3-4, 6-7, 9-10 from 11 Am to 11 Am the following day) for subsistent harvesters in Kuskokwim river mainstem including the villages of Chefornak, Kip1luk, Kwigillingok, and Kolligiganak (except the Aniak box)	Yes	Yes
3KS 01 2020	Chinook salmon closure to all users including subsistence harvesters between June 1 and July 1 2020	Yes	Yes
3KS 03 2019	Chinook salmon gillnet closure to all subsistence users including subsistence harvesters between June 1 and July 1 2019	Yes	Yes
3KS 04 2019	12 hours set gillnet harvest opportunity (on the 1 st of June from 11 AM to 11PM) for subsistent harvesters in Kuskokwim river mainstem including the villages of Chefornak, Kip1luk, Kwigillingok, and Kolligiganak (except the Aniak box)	Yes	Yes
3KS 05 2019	12 hours set gillnet harvest opportunity (on the 8 th of June from 10 AM to 10 PM) for subsistent harvesters in Kuskokwim river mainstem including the villages of Chefornak, Kip1luk, Kwigillingok, and Kolligiganak (except the Aniak box)	Yes	Yes
3KS 06 2019	Three 12 gillnet opportunity (on June the 12, 15 and 19 starting from 6 AM to 6 PM) to subsistence harvesters including these villages of Chefornak, Kip1luk, Kwigillingok, and Kolligiganak (except the Aniak Box)	Yes	Yes
3KS 07 2019	Open harvest opportunity to all federally qualified subsistence harvesters including these villages of Chefornak, Kip1luk, Kwigillingok, and Kolligiganak (except the Aniak Box) from June 19 at 6 PM until superseded by emergency special action.	Yes	Yes
3KS 08 2019	12 hours 6 inches gillnet set harvest opportunity (on June 22 starting from 6 AM to 6 PM) to federally qualified subsistence harvesters including the villages of Chefornak, Kip1luk, Kwigillingok, and Kolligiganak (except the Aniak Box)	Yes	Yes
3KS 03 2018	River wide closure of chinook salmon harvest for all federally qualified users from June 12 2018, starting at 12.01 AM to July 15 2018 11.59 PM	Yes	Yes
3KS 04 2018	12 hours 6 inches gillnet set harvest opportunity (on June 12 starting from 10 AM to 10 PM) to federally qualified subsistence harvesters including the villages of Chefornak, Kip1luk, Kwigillingok, and Kolligiganak (except the Aniak Box)	Yes	Yes
3KS 05 2018	12 hours 6 inches gillnet set harvest opportunity (on June 12 starting from 10 AM to 10 PM) to federally qualified subsistence harvesters including the villages of Chefornak, Kip1luk, Kwigillingok, and Kolligiganak (except the Aniak Box)	Yes	Yes
3KS 06 2018	12 hours 6 inches gillnet set harvest opportunity (on June 24 starting from 10 AM to 10 PM) to federally qualified subsistence harvesters including the villages of Chefornak, Kip1luk, Kwigillingok, and Kolligiganak (except the Aniak Box)	Yes	Yes
3KS 07 2018	Open harvest opportunity to all federally qualified subsistence harvesters including these villages of Chefornak, Kip1luk, Kwigillingok, and Kolligiganak (except the Aniak Box) from June 24 at 10 PM until superseded by emergency special action.	Yes	Yes
3KS 08 2018	6 hours set gillnet harvest opportunity (on the 1 st of June 29 th from 12PM to 6 PM) for subsistent harvesters in Kuskokwim river mainstem including the villages of Chefornak, Kip1luk, Kwigillingok, and Kolligiganak (except the Aniak box)	Yes	Yes
3KS 09 2018	12 hours set gillnet harvest opportunity (on July 5 from 9 AM to 9 PM) for subsistent harvesters in Kuskokwim river mainstem including the villages of Chefornak, Kip1luk, Kwigillingok, and Kolligiganak (except the Aniak box)	Yes	Yes
3KS 10 2018	Rescinds all previously issued special actions on Chinook Salmon in the KRD and within the waters of the YNWLR because the escapement goals for chinook salmon has been attained. Managing fish openings, closings and methods was henceforth assigned to the ADFG and to remain so until superseded by a special action.	Yes	Yes

