

Final report: Framework for assessing the socioeconomics of food, social, and ceremonial salmon harvests (SF-2019-I-20)

Earth Economics

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This final report documents the work completed to date on the socioeconomics of food, social and ceremonial salmon harvests project. Phase I, developing and piloting surveys among PSC Tribes and First Nations, is now complete.

1. Phase I Project Goals

Salmon is at the center of the culture and wellbeing of many tribes and First Nations in the Pacific Northwest. With salmon populations in decline across the region, it is important to understand the breadth and depth of sociocultural values associated with salmon and the impacts of salmon populations on sociocultural health. This project seeks to characterize the sociocultural values related to salmon as held by Tribes and First Nations, and to illuminate the rich and multifaceted relationships that Indigenous communities hold with these critical species.

This project is split into two parts. Phase I aims to develop a framework and test methods for the implementation of data collection and reporting in Phase II. The study draws on an analytical framework first described in Biedenweg et al. (2014)¹, who categorized the sociocultural values related to salmon into a values matrix containing six domains: cultural values, social values, economic values, psychological health, physical health, and governance. Phase I tested and adapted this values matrix or coding framework in relation to data collected from piloting various research methods, including surveys (online, in-person), semi-structured interviews, workshops and focus groups. Phase II draws on the tested methods and framework to describe the status of sociocultural indicators, towards the goal of better understanding the relationship between salmon and First Nation and Tribal culture and wellbeing, particularly in the context of changing access to, and availability in, Pacific salmon species.

2. Phase I Project Status

The central objective of this project is to identify and describe cultural values related to salmon. The first step in this process is to identify relevant indicators for coding qualitative information to assist with reporting. To identify these indicators and understand their relevance for Indigenous communities across the Pacific Salmon region, Phase I tested and developed a research framework and methods.

Earth Economics reviewed published literature on assessing cultural values of native groups, including the study conducted by Biedenweg et al. (2014) which proposed a values matrix of 23 categories of types of cultural values (called “attributes”) organized into six broad “domains,” based on interviews with the Quinault tribe. We used the matrix from this study as a starting point, reviewing other

¹ Biedenweg, K. et al., 2014. Measuring Sociocultural Values Associated with Salmon in the Quinault Indian Nation. Puget Sound Institute.

literature with similar frameworks to identify any gaps.² A draft of the values matrix was then reviewed by our advisory group and subsequently modified. Additionally, after piloting the analysis with the values matrix and further review from Tribal and First Nations PSC commissioners, Earth Economics made additional modifications to the values matrix, to include the domains: Knowledge and Practices, Management, Health, Livelihoods, Feelings, and Social domains. Pilot work additionally showed that there are concerns around drivers of change which have influenced these values, and as such this study has incorporated an additional level of analysis to understand drivers of change in relation to sociocultural indicators.

To pilot methods we created survey and interview questions which draw from the research framework. Earth Economics researchers adapted survey questions from previous studies, with additional questions as needed. This thirty-two question paper survey (including demographic questions) was distributed at the Nez Perce General Council Meeting (see section 3.1). The survey was then modified further, based on those responses. The second survey with thirty-three questions was then disseminated at the First Nations Fisheries Council (FNFC) Annual General Assembly meeting this November and online at the PSC Post-Season Meeting. At the same time, Earth Economics conducted in-person and conference call interviews with people who expressed interest at these meetings. We also tested the interview questions during a group discussion at the PSC Post-Season Meeting and focus groups at the PSC Annual Meeting. After further feedback and analysis from the advisory board and PSC members, Earth Economics synchronized questions between interviews and surveys and the updated framework. Please see the Appendix for more information on the Phase I project achievements.

3. Phase I Milestones

Status	Task	Complete Date/Target	Phase
◆	Task 1: Project Initiation	3/28/19	Complete
◆	Task 2: Identify test survey populations	12/16/19 (was 4/30/19)	Complete
◆	Task 3: Design Survey Modes	7/31/19	Complete
◆	Task 4: Test In-Person Survey	9/27/19	Complete
◆	Task 5: Test Workshop (Focus Group)	1/31/20 (was 9/30/19)	Complete
◆	Task 6: Test Online/Mail Survey	1/31/20 (was 9/30/19)	Complete
◆	Task 7: Modify Survey Designs	12/20/19	Complete
◆	Task 8: Analyze Test Data	1/31/20	Complete
◆	Task 9: Draft Test Results	2/28/20	Complete
◆	Task 10: Planning for Year 2	2/28/20	Complete

◆ = Complete ▲ = In progress, on track ► = Delayed ▼ = Blocked ● = Not started

² Studies reviewed: Arias-Arévalo, P. et al., 2017. Exploring intrinsic, instrumental, and relational values for sustainable management of social-ecological systems. *Ecology and Society* 22(4):43; Chan, K. et al., 2012. Rethinking ecosystem services to better address and navigate cultural values. *Ecological Economics* 74: 8-18; Fish, R. et al., 2016. Conceptualising cultural ecosystem services: A novel framework for research and critical engagement. *Ecosystem Services* 21: 208-217; LeFrance, J., Nichols, R. (2010). Reframing evaluation: defining an indigenous evaluation framework. *The Canadian Journal of Program Evaluation* 23(2): 13-31.

4. Project Management

The project team dealt with internal challenges halfway through Phase I due to administrative and staffing transitions at Earth Economics. Successful implementation of Phase II requires a proactive and coordinated team that will keep activities on track, especially outreach activities. We have reconfigured the project team to improve internal coordination and implementation tracking, selected a new project leader, and improved regular communications internally and with external project advisors, attended by multiple staff.

The Columbia River Inter-Tribal Fisheries Commission (CRITFC), PSC First Nations Caucus, and the Northwest Indian Fisheries Council (NWIFC) have been identified as priority organizations for the next phase. Our successful collaboration with CRITFC led directly to the implementation of the first pilot survey mode at the Nez Perce General Council Meeting in September 2019. Between the meetings attended and with the help of the advisory board, Earth Economics has developed an extensive list of organizations, Tribes, and First Nations to contact for Phase II.

5. Budget

As of March 1st 2020, expenditures are within budget as shown in the table below. Expenses for travel, supplies, and equipment were greater than originally planned as Earth Economics hosted two working lunches at the PSC Post Season and Annual Meeting.

Upon review of Phase I, Earth Economics seeks an additional \$150,000 for Phase II of the project.

Framework for assessing the socioeconomics of food, social, and ceremonial salmon harvests budget						
Wages & Salaries	Budgeted Hours	Actual Hours	Hourly Rate	Total Budget	Total Actual	
Projector Director	400	393.25	\$150	\$60,000	\$58,988	
Research Lead	360	382.75	\$150	\$54,000	\$57,413	
Research Analyst	272	124.75	\$85	\$23,120	\$10,604	
GIS Analyst	0	5.50	\$85	\$0	\$468	
Communications	32	38.75	\$85	\$2,720	\$3,294	
Total	1064	945		\$139,840	\$130,765	
Travel				\$6,000	\$7,323	
Supplies				\$200	\$1,515	
Equipment Rental				\$300	\$1,199	
Total				\$6,500	\$10,037	
Total Project Cost				\$146,340	\$140,802	