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Applied Sociology Thesis: Integrating Knowledge Co-production into  
Non-profit Program Development

by  
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A thesis  
submitted in partial fulfillment  
of the requirements for the degree of  
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To the Graduate Faculty:

The members of the committee appointed to examine the thesis of JESSICA REYNOLDS find it satisfactory and recommend that it be accepted.

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# Applied Sociology Thesis: Integrating Knowledge Co-production into Non-profit Program

## Development

Thesis Abstract--Idaho State University (2022)

Knowledge co-production aimed at collaboration between diverse actors to address complex issues has the potential to achieve positive socio-environmental outcomes. In partnership with the 501c3 organization, La Fuerza del Buzo (The Strength of the Diver), I 1) created a Gantt Chart to guide the organization's future direction of strategic planning, 2) created a white paper on using knowledge co-production for the organization's community-based program development guide organization operations, and 3) developed Individual Story maps for use on La Fuerza del Buzo's website to showcase individual stakeholders' stories and co-identified needs. Knowledge co-production processes including findings elicited from interviews with marine stakeholders between November-December 2021 were used to develop each of these final products and presented to the organization to aid in La Fuerza del Buzo's program development.

Key Words: Community-based organization, non-profit development, knowledge co-production



## **Positionality Statement**

As a social scientist, it is critical that I understand how my worldview affected the communities I entered in Chile and my understandings of the social and cultural context I studied. I stepped foot in Chile in Fall 2021 following the height of the COVID pandemic and as one of the first non-Chilean travelers to navigate the many challenges of the bureaucratic health restrictions of the country. My desire to travel to and study in Chile began after a season of marine conservation field work in Costa Rica in 2018, where I was exposed to the rich, vibrant, and generous culture of rural Latin America. During this time, I met a mentor and friend, Graciela Pulido Petit, who shared with me the reality of the political climate of Venezuela and how recent changes have affected her family- with her moving to work in Costa Rica and her sister in Chile- sending a majority of money earned back to their parents still in Venezuela. This giving nature and the role of family in Graciela's life pushed me to learn more about the rich political history of Latin America and how this affects those dependent on the ocean for their livelihoods.

While I was working in the Lakes Region of Chile, my presence as an outsider in small, rural fishing communities in the COVID era set the tone for my ability to establish relationships and trust within communities. While being a young, white female likely influenced some individual's decisions to speak with me, my position as a student conducting research in one position obviously reflected the information individuals were willing to share. One example of this took place when one individual who approached me told me not to share any information if it was related to my work, despite their vast knowledge and involvement in marine fisheries in their community. One individual even expressed her hesitancy in speaking with me due to the past dissatisfaction with a student researcher who misinterpreted her statements and put this

work online. Interactions like these that took place due to a lack of trust were difficult to address, yet I tried to combat these run-ins with a native Chilean research assistant, Francisco Ignacio Acuña Polanco, by my side to assist with communication and trust in these communities.

Through the nature of my work in marine fisheries, though, I also came prepared to discuss current documented issues and past histories and regulations such as the red tide event of 2016 or the development of marine management mechanisms called TURFs (Territorial User Rights in Fisheries) that increased trust. By demonstrating I have taken time and effort to learn of the social, historical, and political context in which I was working, individuals often seemed more excitable in speaking with me. Ultimately, it is these understandings of the impacts of my presence on research participants and their interactions with me that have influenced the accuracy of data collected, project design, and final products presented to the non-profit organization with which I worked. A lot of the connections made and information gathered will be used by this organization to work with and continue support communities they work with as a part of their mission.

## **Introduction**

La Fuerza del Buzo (LFDB) is a newly incorporated 501c3 non-profit organization (NGO). Their mission is to secure fishing livelihoods and promote sustainable marine ecosystems through innovative community-based programs that address issues of public health, community development, and marine conservation in Los Lagos Region, Chile. As a part of my applied thesis, I interned with LFDB to assist in fundraising, relationship-building, strategic planning, and organizational and program development to help them achieve their mission. Through these activities, I have 1) developed a Gantt chart to guide organizational strategic priorities; 2) produced a short white paper on knowledge co-production to guide the executive team and to inform donors of knowledge co-production processes used in program development at LFDB; 3) created individual story maps of Los Lagos community members for LFDB's website to attract donors; and 4) wrote a reflection document that details how these activities have increased my knowledge and skills in community-based engagement and how this contributed towards my professional development.

### **1.1. La Fuerza del Buzo's Mission**

To help readers understand material presented in the rest of this document, it is first necessary for them to understand LFDB's goals and overall mission, as a variety of the activities I completed to create these products as an intern with LFDB were guided by these. The current mission statement of LFDB is:

*La Fuerza del Buzo seeks to secure fishing livelihoods and promote sustainable marine ecosystems through innovative community-based programs that address issues of public health, community development and marine conservation.*

The mission of LFDB is to use a community-based approach to achieve its goals of: 1) sustained livelihoods and sustainable marine ecosystems through addressing issues of environmental change and public health through their programs in public health, community development, and marine conservation, and 2) to develop a framework for community-based programs that can be used to support livelihoods and marine ecosystems in fishing communities around the world. Community-based approaches are defined as those that “enable communities to actively design, develop, and be involved in the delivery of their own....prevention and intervention strategies, [and this] approach challenges community members to identify what the issues are...to work together to address those issues.” I will discuss community based approaches further in Section III, but with this understanding of the community-based approach in mind, my goal throughout this document is to have readers understand why I took the steps I did, completed the selected activities, and produced the following products to gain skills and knowledge in community-based approaches, as they relate to LFDB’s mission and goals.

### **Strategic Planning: Developing a Gantt Chart for *La Fuerza del Buzo***

Over the last year, I have worked with LFDB’s executive team to assist in strategic planning efforts. I initially started assisting LFDB in the development of a strategic plan, a document that guides the operations of an organization over their next three to five years of operations. However, following a variety of activities, including board meetings designed to

develop a strategic plan, it became clear that LFDB, as a new organization, is not a point in which they can undergo the strategic planning process and the official creation of a strategic plan. This is due in part to the need to have the strategic plan informed by stakeholders input from Chile, as a community-based organization. Therefore, as a group, we decided that a first step towards strategic planning would be to develop a Gantt chart. A Gantt chart is used to guide organizational priorities in a visual timeline format. Throughout this section, I will describe in detail the steps I have taken to inform the strategic planning process for LFDB, to inform the development of LFDB's programs, and eventually, to create the Gantt chart for LFDB. To describe these steps, I have organized this section using subsections that describe the activities/professional skills I have developed through the completion of my applied project. Within each subsection, I have included subparagraphs to denote the activities/ methods/ design used to form skills for my professional development, followed by what I learned, and, lastly, how the information learned will inform LFDB's future activities. While it may seem a bit disconnected to the flow of this discussion, I then follow this section by presenting the Gantt chart that was created through identification of strategic priorities and needs of the organization. I have also displayed a timeline below to help readers visualize the order and timing of the activities I describe below during the course of my MA program:

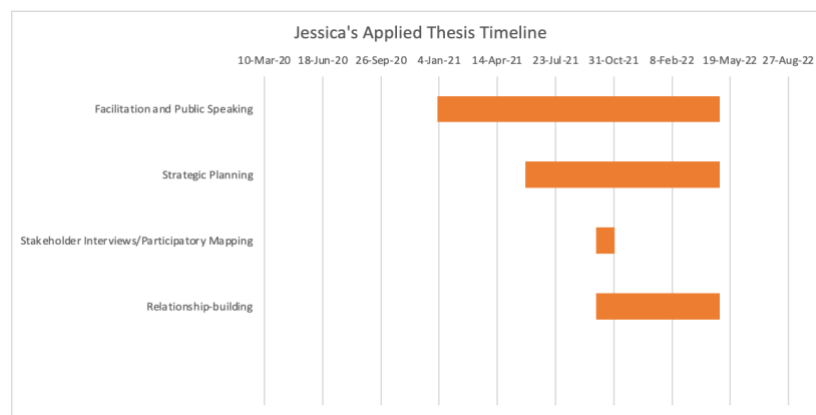


Figure 1. Timeline of when I gained professional skills during my thesis.

## **Section I. Activities**

### **2.1. Strategic Planning**

#### **2.1.1. Activities/Methods/ Design**

To gain skills and knowledge in strategic planning to meet both my professional development goals and to develop a Gantt Chart for my thesis, I have 1) read three books on strategic planning; 2) enrolled in and completed a directed study facilitation course in which I have attended several strategic planning meetings with local non-profit organizations; and 3) facilitated a strategic planning meeting with LFDB to help guide and develop my Gantt Chart thesis product.

- I read the following three books:

- 1) Bryson, J.M. and Alston, F. K. (2011). *Creating Your Strategic Plan. A Workbook for Public and Nonprofit Organizations* (3rd edition). Jossey-Bass.
- 2) Bryson, John M. (2018). *Strategic planning for public and nonprofit organizations: A guide to strengthening and sustaining organizational achievement* (4th edition). Jossey-Bass.
- 3) Crowley, J. and Ryan, M. (2013). *Building a Better International NGO: Greater than the Sum of the Parts?* Kumarian Press.

While doing these readings, I took extensive notes and adapted activities from them for use in LFDB board meetings to inform their strategic planning efforts. These activities are listed and detailed in Section 2.3.

- In March 2022, I joined two meetings with Dr. Rob Lion, Assistant Professor at Idaho State University in Organizational Learning and Performance and corporate consultant

and owner at Black River Performance Management LLC in Pocatello, ID, as he worked with clients on their strategic plan. During our first meeting with Life, A Center for Independent Living (501c3), we met with the new executive director and the chief finance officer to discuss their goals for the upcoming strategic planning meeting with staff and board members. Next, I attended their official strategic planning meeting in which the goal was to establish strategic priorities and outcomes. Throughout both of these meetings, I took extensive notes and facilitated relationship-building activities (Fig. 2). I used my experience and what I learned to inform the strategic planning meeting for LFDB executive members during March 2022.



Figure 2. Facilitating a strategic planning meeting with *Life, A Center for Independent Living* (501c3) during March 2022.

- In March 2022, I facilitated a strategic planning meeting with LFDB in which myself, board member Dr. Morey Burnham, co-founder Dr. Sarah Ebel, and corporate consultant, Dr. Rob Lion were present. The focus of the meeting was such that not all board members were needed to be present as both selected individuals hold significant knowledge in community-based approaches and the goals of the organization. In this meeting, I asked Dr. Ebel and Dr. Burnham to begin by explaining what the organization

is and does. This was performed to establish key information that could assist Dr. Lion and I develop a framework to help LFDB move forward with their organizational development and the creation of strategic priorities. Next, I asked Dr. Ebel and Dr. Burnham to describe both individual and group goals for the organization, including their hopes and dreams. This information and understanding was needed to structure further organizational development and, again, the creation of strategic priorities. Then, I asked the group to identify any existing or expected obstacles, barriers, and challenges to operations, planning, and board member relations and roles at LFDB. This discussion was needed to allow for us collectively to start responding to the issues that are needed to address prior to beginning a strategic planning process and the opportunities that we need to seek as an organization to make a plan/framework for moving forward.

### **2.1.2. What I learned**

- From the selected strategic planning readings, I learned a wide range of information about best practices for developing a strategic plan for non-profit and international NGOs. Content spanned from creating program logic models and conducting program evaluation, to developing a mission statement and obtaining funding. While not an exhaustive list, these readings provided me with a foundation to begin understanding the necessary elements needed to construct a strategic plan and also an understanding of where an organization needs to be in order to undergo the strategic planning process. Lessons that I learned from these readings include how it is important to have input from the international communities to support or rebut the overall effectiveness of programs, the need for measurable outcomes for specific programs in order to complete a logic



model, and the funding needed to get to this point. It is clear that LFDB's next step must be to have community-based input on their programs because it is this community input that is needed to develop strategic priorities, to implement programs, and to measure program success for a community-based organization. Based on my new knowledge of the process of strategic planning and facilitation, I would highlight 1) the importance of funding needed to hire a professional consultant that specializes in non-profit development and strategic planning that could speak to the needs of LFDB through past experiences with other new non-profits, and 2) the need for at least one individual in the communities of which LFDB is working to continue seeking the community's vision for this organization and that can communicate those findings with the US board.

- During the Strategic Planning Meetings with *Life, A Center for Independent Living* (501c3), I learned 1) methods that could be used, such as surveys, to ensure inclusion of community/stakeholder input into board strategic priority development so that need and values of the community the organization is serving are built into their strategic plans; 2) the need for a facilitator or consultant that has extensive knowledge and specializes in the understanding of human dynamics that can hinder or facilitate relations needed to engage in decision-making and recognizes the importance of accounting for the organizations' history and mandates that impact operations prior to assisting in the strategic planning process in order to get an accurate idea of organizational needs and readiness for strategic planning; and 3) ways to break down power imbalances through clear and understood roles that provide explicit duties/responsibilities amongst staff and board members. Role clarity amongst staff and board members establishes checks and balances that prevent

- tyrant executive directors who make all decisions for an organization based on their personal beliefs, values, and vision for the organization alone.
- The March 2022 LFDB strategic planning meeting revealed the need for a different type of final product for my thesis. While originally I set out to create a strategic plan outline to present to the organization, we concluded that a Gantt Chart document that provides LFDB's director a timeline to perform next steps and achievable goals would prove more useful for advancing LFDB's development. A Gantt Chart visually displays the temporal priorities of an organization to communicate responsibilities and to assist in the prioritization of tasks.

### **2.1.3. How does this inform the Gantt Chart for LFDB?**

- The activities in this section are what led to the identification of a Gantt Chart as a more effective tool at this stage of organizational development (compared to a strategic plan) to be used by LFDB to push their organizational operations forward, as this organization is not at a stage yet to begin the strategic planning process.

## **2.2. Facilitation and public speaking**

### **2.2.1. Activities/Methods/ Design**

To gain skills and knowledge in facilitation for both my professional development goals and to learn to effectively facilitate meetings to develop the Gantt Chart output for my thesis, I have 1) independently instructed SOC1101 for four semesters; 2) enrolled and completed in a directed study facilitation course through which I have facilitated small-group breakout sessions for an

ISU and Shoshone-Bannock Tribal Workshop to improve research relations between the groups; 3) created a facilitation guide for future students in the facilitation course; and 4) co-facilitated LFDB board meetings.

- In Spring 2021, Summer 2021, Fall 2021, and Spring 2022, I independently instructed my own SOC1101 both in-person and online. The courses had enrollments of up to 65 students. I lead discussions, lectures, and activities surrounding research methods and complex sociological concepts and theories.
- In my facilitation course, I have:
  - 1) facilitated small breakout groups in the (Re)Cultivating & (Re)Newing Reciprocal Research Workshop Series between ISU researchers and Shoshone-Bannock Tribes to improve relations amongst groups historically in conflict to increase my knowledge on mechanisms needed to achieve successful decision-making. This knowledge will be transferable to my facilitation activities with LFDB and also to my future career.
  - 2) created a student facilitation guide designed to serve as a reference and easy-to-navigate tool for future students enrolled in this new facilitation course. In this guide, I use my personal experiences and examples from the field to demonstrate certain concepts, including: 1) how to prepare for your meeting; 2) understanding your role as a facilitator; 3) managing conflict; and 4) activities that can be used to facilitate relationship-building among your group. I have also read and taken extensive notes

from the following two books to increase my knowledge in facilitation-related concepts and techniques:

- 1) Parker, Priya. (2020). *The Art of Gathering: How We Meet and Why It Matters*. New York: Riverhead Books.
  - 2) Bens, Ingrid. (2016). *Facilitation Techniques for Consultants*. Facilitation Tutor, LLC.
- I facilitated two LFDB board meetings. For the first meeting in September 2021, I aimed to complete a strategic planning exercise guided by an activity derived from Bryson & Alston (2011). This activity was designed to elicit our purpose for creating a strategic plan for LFDB, who we plan to include in this process, and the expected barriers we plan to encounter. The last question in this activity was designed to facilitate discussion surrounding fundraising and events. I facilitated a second LFDB board meeting in November 2021, where I began with a presentation on what a community-based organization is and what are the pros and cons of using this type of approach to initiate a shared foundation in board members' understanding of the concepts and literature used to back organizational structure and future plans. Following this presentation on community-based approaches, I had board members complete an activity in which they filled in a program logic model, a visual chart that links activities, inputs, outputs, and outcomes associated with LFDB's programs. The program logic model provided board members with an opportunity to discuss inputs necessary to establish LFDB's programs, what would be the immediate result of these programs, and how those outputs would inform desired and/or expected outcomes. The goal with this activity was to have board members understand how community input on program design, implementation, and

effectiveness could/should be used at every step of our program development to ensure our approach is truly community-based.

- I facilitated a Google Jamboard activity at the March 2022 LFDB board meeting to discuss, clarify, and establish board member roles. This online tool provided our board members with a mechanism to perform a brainstorming activity to provide thoughts, reflection, and suggestions to improve and clarify board member roles. A clear understanding of roles of both board members and of the executive director of a non-profit organization are necessary to ensure successful governance and operations.

Activity questions included:

- What do you believe is currently included in your role/how would you describe your duties as a board member of LFDB?
- How do you expect your duties as a board member to change over time?
- How would you currently describe the roles and duties of the LFDB's Chilean board?
- How do you believe we could improve the board member roles for the Chilean board?
- What do you believe is needed for your success as a board member at LFDB?

### **2.2.2. What was learned**

- Through teaching an undergraduate course at ISU, I have learned the importance of creating an environment in which individuals feel safe to express their varying experiences, beliefs, values, and stances on societal issues as they relate to the field of sociology. In facilitating discussion in topics that historically hold conflict, such as race and sexuality, amongst diverse individuals, I have learned: 1) how to address conflict

between people stemming from differing worldviews by drawing any relevant parallels and/or by having students describe where they believe their unique line of thinking originated based on their social environments and past experiences; 2) how to engage in complex sociological discussions by breaking down concepts as social constructs and linking to the ability to challenge systems with this type of thinking; and 3) how to feel comfortable with public speaking through continued exposure to large classroom settings and these difficult discussions.

- From my experience facilitating small groups in the (Re)Cultivating & (Re)Newing Reciprocal Research Workshop series, I learned best how to approach difficult conversations that stem from different epistemologies and lived experiences that affect why different groups behave differently when approaching research. At this specific event, academics and Tribal members engaged in discussion over research drivers and how these two can better collaborate despite past conflicts. One method that I learned during this event is how important it is to allow time for participants to discuss these topics, as these conversations can trigger feelings that stem from hardship in their lived experiences due to the historical treatment of Native Americans through colonialism and can be difficult for individuals to have. To overcome moments of high emotions due to past and current traumas, it is necessary to practice patience and to allow individuals time to gather their thoughts and what they want to say. This may even involve the desire to just want to listen and not respond at all, and that is something that as an academic myself for the past few years I haven't seen encouraged in our system. For example, in undergraduate and graduate classes there is a social pressure to form your thoughts as

quickly as you can to embody more intelligence and the ability to think on-the-spot. In classroom settings, instructors may even call on you unexpectedly to answer a question that relates to materials, analyzing information, or applying new concepts to the real world which forces you to respond due to this social pressure. As a facilitator at this event, I found waiting with moments of extended silence for the first time not as a bad thing, but more as a necessity for those that value the act of deep listening as a part of storytelling and Indigenous culture, or in other cases, as an opportunity to open space needed for some individuals that need more time to process ideas and to form what they would like to say.

Overall, my involvement in this event taught me knowledge of 1) the significance of listening and storytelling associated with Indigenous culture; and 2) Indigenous spirituality and relations with ancestors and the Earth that guides every-day practices. My furthered understanding of Indigenous ways of knowing will be useful in creating my individual story maps at LFDB to highlight often historically underrepresented groups in fisheries management, including Indigenous women. Indigenous groups in Chile and Indigenous women hold experiences, stories, and knowledge that can further understanding of topics associated with LFDB's mission, including diver health, marine conservation, and community development. By highlighting cultural values, spirituality, and ties to the earth and elders in my individual story maps for LFDB's website, my hope is to increase understanding of experiences and issues these individuals are facing in the communities that LFDB serves.

- In my facilitation-related readings, *The Art of Gathering* provided me with a great foundational perspective on the importance of selecting a meeting place when you gather people together and how this decision affects human relations and, ultimately, the decisions being made. In this book, Parker (2021) described a meeting that she attended in Europe where government officials met in a large room full of gold accents and lots of space. At this meeting, Parker (2021) describes how you do not want to select a location that exuberates wealth and that can play into power differentials when discussing representation of historically underrepresented groups in policy decision-making, as she believed this room reflected a hierarchical setting and felt cold, which led to failed decision-making. From this example, Parker (2021) highlighted the need to select a setting that is conducive to all entities, that levels pre-existing power, and that feels comfortable in size to create an intimate environment amongst participants. When teaching my own section of Introduction to Sociology at ISU, I saw how many of these discussions related to gathering and meeting place played into the behavior of my students in an online Zoom class and their unwillingness to speak. In the strategic planning event I participated in with Dr. Rob Lion and *Life, A Center for Independent Living (501c3)*, I saw how Rob made decisions to arrange the meeting room in the beginning to make it feel smaller and to make each table feel connected through a circular arrangement.

Next, the book, *Facilitation Techniques for Consultants* provided me with a toolkit I can use for successful facilitation. For example, this book taught me the importance of familiarizing myself with the history of clients. As a facilitator, your experiences will span a breadth of topics and organizations with different work cultures;



and different social, economic, and political histories. Because of this, you need to do your own research ahead of time and feel free to ask clients about this information in preliminary meetings. In my meeting with *Life Inc. A Center for Independent Living* (501c3) alongside Dr. Rob Lion, I was informed of Dr. Lion's previous meetings held with this group to understand complex histories of past executive directors that have led to lingering financial issues within the organization and board member conflict that led to the creation of a new executive team. This information is necessary to know, so that as a facilitator, you know you are starting at a relationship-building phase and clarification of roles between board members phase with this group. Otherwise, without knowing this information, you may try to begin facilitation activities at a point where this group is not prepared for yet. As a part of the toolkit provided by *Facilitation Techniques for Consultants*, I was provided with example questions for how to get to know the client and their history including:

- “Tell me the story of the organization.”
- “What’s the best contribution I can make to this project?”
- “Tell me about any past consultants and that experience.”
- “Where could the organization improve?”
- “What does the organization do exceedingly well?”

Example questions, statements, and strategies used to address conflict during meetings were also included within the overall toolkit provided by this book. Overall, this book provided me with knowledge that I can apply to teaching classes, leading discussions, and working in committees.

- The September LFDB 2021 board meeting and corresponding activity revealed the following two barriers to beginning/continuing the strategic planning process: 1) as a new 501c3 organization, LFDB has insufficient funding to support its operations, implement programs, and hire staff to bridge communication between marine stakeholders on the ground in Chile and the US board; 2) LFDB have not yet established mechanisms for communication and shared labor between the Chilean and US boards, which is essential to ensuring a true-community based approach is used.
- While I received input at the November 2021 LFDB board meeting that the organization is not at the correct stage for conducting a program logic activity, the director and myself decided to complete the activity because it would demonstrate to board members *how* decisions at every step of program development and implementation can and should be made with community input to ensure a true community-based approach is being used. While specific inputs, activities, outputs, and expected outcomes were proposed, this brainstorming more importantly sparked discussion and allowed board members to create a list of next steps for future programs and inputs needed to initiate their design and implementation. This discussion and identification of next steps informed activities included in the Gantt chart. In particular, fundraising was identified as a major need so that financial assets would be available to initiate program development and implementation. This meeting also brought to light conflict that exists between board members and differing ideas of how to move forward. For example, while one individual comes from a research and community engagement background another individual has a

background in business. The ways of thinking and perceived areas for prioritization between these two individuals for next steps for LFDB differed drastically. This conflict then was used to develop the next meeting and strategic priority for the board to establish role clarity and to allow these board members roles/duties that reflect their expertise (also included in the Gantt chart).

- The March 2022 LFDB board meeting and the Jamboard activity revealed the need to clarify board member roles and responsibilities (included in Gantt chart).

### **2.2.3. How does this inform LFDB?**

- Through my facilitation readings, experience teaching, and experience facilitating at a variety of events, I have gained skills in facilitation and increased my understanding of how humans interact, behaviors that call for conflict reduction tools, and my role as a facilitator. This newly developed knowledge and skill set has contributed to my ability to assist in facilitating LFDB board meetings.
- The LFDB board meetings that I have facilitated, though, are what have elicited information, sparked discussion, and led to identified strategic priorities that have been used to develop the Gantt Chart.

## **2.3. Stakeholder Interviews/ Participatory Mapping to Identify Research Needs**

### **2.3.1. Activities/Methods/ Design**

- I conducted 12 interviews (n=12) from November- December 2021 in various locations in the Los Lagos Region of Chile, including the island of Chiloé as a part of the strategic planning process for LFDB. Research participants included fishing union leaders, union members, Indigenous community members, public health officials, seaweed harvesters, divers, and independent fishers in the Lakes Region. The purpose of these interviews was 1) to co-identify community research needs to inform the strategic planning process and program development of LFDB; and 2) to create individual story maps for LFDB's website to highlight lived experiences and stories of marine stakeholders in the region LFDB works.
- I used ESRI ArcGIS Field Maps to collect coordinates or areas where individuals harvested to elicit information related to their connections to the ocean space, ocean change, local ecological knowledge, and socio-cultural values. The purpose of the participatory mapping was to embed maps and spatial data in the individual story maps on LFDB's website alongside knowledge, stories, and multi-media images to further interdisciplinary understandings of lived experiences in relation to ocean space.
- Interviews (n=12) were transcribed, translated, and manually coded to identify common themes and unique individual stories developed through participant experiences.

### **2.3.2. What was learned**

- Through conducting interviews and participatory mapping with marine stakeholders in Chile, I learned the importance of conducting interviews through a conversational and unstructured approach, as this allows participants to dwell on their experiences and leads to more truly conceived co-identified community needs that are less influenced by my perceived ideas of what I believe the community needs.

### **2.3.3. How does this inform LFDB?**

- Interviews elicited information that has the potential to:
  - 1) Inform organizational/program development at LFDB
  - 2) Influence the implementation of current programs at LFDB that are designed to address issues in diver health, marine conservation, and community development
  - 3) Inform the Gantt chart/ development of strategic priorities for LFDB
  - 4) contributed to storytelling and individual story maps on LFDB's Website
- Through coding these interviews and the discussions I had with harvesters while doing participatory mapping, I found themes related to the need for increased diver education, student internship programs, and suggested collaborative approaches needed to address issues in Chiloé communities. I also found themes related to cultural/spiritual ties of participants to the sea, and newly co-identified community needs that have the potential

to inform our program development and implementation at LFDB. More specifically, interviewees suggested that Indigenous-led marine conservation workshops are needed to increase representation and to highlight voices of Indigenous communities that play a large role in marine fisheries and have previously been underrepresented in State marine management decision-making processes.

- These needs, co-identified through interviews, are used to inform next steps for program development and implementation at LFDB. This prioritization will be reflected in the Gantt chart. Additionally, relationships developed through these interviews and participatory mapping activities will be built upon by following up with these individual participants. This will also be prioritized in the creation of the Gantt chart.

## **2.4. Relationship- building**

### **2.4.1. Methods/ Design**

In addition to interviews and participatory mapping that innately contains some elements of relationship-building due to face-to-face interactions and intimate discussions surrounding lived experiences, familial ties, and cultural values, I have pursued several additional activities that have contributed to relationship building between LFDB and external stakeholders. These activities include the following:

- 1) I organized and conducted an informational interview with Tompkins Conservation/ ReWilding Chile Executive Director, Carolina Morgado. As a non-profit organization comprised of both Chilean and US actors, my goal with this meeting was to understand

the framework of their organization, and to understand how their team communicates between those in Chile and those in the US to inform and improve the organizational structure and planning processes at LFDB. My interview guide contained the following questions:

1) What are the mechanisms that ReWilding Chile uses to work across borders between the US and Chile?

- Are there two separate boards of directors?
- Are there frequent meetings between those from the US and those from Chile?

2) How do you achieve successful collaboration between the US and Chile to achieve successful decision-making in terms of organizational and program development?

3) How do you approach and manage conflict between those in the US and those in Chile to make decisions?

2) I assisted LFDB in several fundraising activities that are needed to develop relations with donors here in the US to fund our program implementation, including the following:

1) Tabling at Patagonia Bend

2) Tabling at Patagonia SLC



Figure 3. Tabling event with LFDB at a Patagonia retail store in Bend, Oregon.

#### 2.4.2. What was learned

- Through the meeting with Carolina Morgado, myself and LFDB's director learned about Rewilding Chile's use of a fiscal sponsor to receive the majority of their operational funds. We also learned about the dynamic between the two Boards serving Rewilding Chile with the US board designed to solely collect and donate funds to the programs in Chile. The US team has never taken part in decision-making processes with the organization. This meeting revealed the option of fiscal sponsors as a potential option to fund our programs, and this later led to a board meeting to discuss the pros and cons of this type of sponsorship and whether this is something we should do as an organization.
- During the tabling events, I collected over 15 donations totaling over \$580 for LFDB. These donations will be used to implement a student internship pilot program this coming



summer. Additionally, while these are the tangible outcomes, relationship building has taken place by raising awareness in individuals in communities here in the US.

#### **2.4.3. How does this inform LFDB?**

- This mutual learning process with ReWilding Chile has informed LFDB's discussions regarding donors and fundraising processes that are reflected in the Gantt chart.
- The tabling events have guided the need to follow up with our donors with hopes that they continue to support our mission.

### **Section II. Gantt Chart**

A Gantt chart is a document that is used to guide organizational priorities in a visual timeline format. The purpose of a Gantt chart is to provide clarity to strategic priorities and corresponding deadlines. The Gantt chart I have created below provides LFDB's director a timeline to perform next steps with achievable goals in mind to advance LFDB's development. The Gantt chart visually displays priorities across time that are aimed to communicate responsibilities and to assist in the prioritization of tasks.

### **Identified next steps for LFDB**

Through compilation of strategic priorities identified by LFDB's executive team during meetings, I have created the Gantt chart below to assist LFDB and their executive team in next steps for the organization:



**White Paper on Knowledge Co-production for use in the Development of Non-profit  
Organization, *La Fuerza del Buzo***

As LFDB aims to achieve its mission through the use of best practices for community-based approaches to identify strategic priorities, to achieve successful decision-making, and to develop its programs, the Board and potential donors need to be familiar with what community-based approaches are, why they are used, and how they are used. A basic understanding of community-based approaches to level foundational knowledge across board members is a crucial first step to enable LFDB to achieve its organizational goals.

***What are community-based approaches and why does La Fuerza del Buzo use one?***

La Fuerza del Buzo (LFDB) uses a community-based philosophy to guide their organizational decision-making, program development, and program implementation. In the environmental non-profit sector, international organizations from the Global North (such as the US and Europe) have a history of implementing conservation solutions to preserve biodiversity and protect natural resources from human destruction to those in the Global South. Often, these solutions exclude humans from the natural environment, an approach that is rooted in Western ideologies of conservation that assume humans are solely extractive and bad for the environment. One example of conservation initiatives based in the Western idea of fortress conservation which “relies on the forced exclusion of people [from lands for them] to remain viable” (Igoe, 2004) and include no-take marine protected areas that ban humans from fishing, harvesting, and extracting marine resources. While this approach appeals to many conservationists and is seen as a solution to increase stocks and regenerate habitat, the exclusion of humans and their access to ocean space fails to consider the effects that the loss of access to marine resource harvest has on

local communities and human-environment interactions that produce biodiversity and abundance of some species.

Traditionally-used conservation approaches like this are rooted in colonialism and frequently lead to detrimental social and environmental impacts in local communities. These negative impacts are attributed to the failure of considering local dependencies on resources as they relate to topics such as food security, interactions between locals and the resources that include the cultural significance humans

ascribe to certain resources.

Additionally, these approaches fail to consider the economic impacts that

**"Community- based approaches are defined as those that "enable communities to actively design, develop, and be involved in the delivery of their own... prevention and intervention strategies [, and this] approach challenges community members to identify what the issues are... to work together to address those issues" (Van Bibber, 1997).**

Western programs have on local

communities, often linked to limiting/restricting previous strategies locals have used to obtain their livelihoods and provide for their families while, simultaneously, failing to provide alternative work opportunities to sustain these livelihoods (Rademacher, 2011; Bebbington & Riddell, 1995; Platteau & Gaspart, 2003). To address the failures of conservation approaches driven by Western ideologies and non-community based approaches to conservation, there is a need to integrate true community-based approaches into the philosophies of nonprofit organizations to ensure local representation, respect local conditions, and reflect lived experiences in program development, as locals are the ones impacted by program implementation (Sanderson, 2002; Igoe, 2004)

## Section I. Knowledge co-production and its importance at LFDB

La Fuerza del Buzo will use a knowledge co-production approach to community-based

*Knowledge co-production is defined as a process of combining different ways of knowing and perspectives from multiple user groups to jointly produce knowledge that can be used to understand and address key issues (Lemos and Morehouse, 2005; Akpo et al. 2015; Polk 2015; Mach et al. 2020).*

program development to develop and implement programs that reflect local needs and represent local voices. This local representation in program development is expected to result in successful

programs that cultivate desired conservation and social outcomes compared to Western conservation approaches. Knowledge co-production can be defined as the process of combining different knowledge sources from diverse groups, including non-scientists and local actors, to jointly produce knowledge that can be used to address key issues (Akpo et al., 2015; Lemos and Morehouse, 2005; Mach et al., 2020; Polk, 2015). To achieve knowledge co-production in fisheries research, an organization should incorporate the following best practices into their program development (Cooke et al. 2020), each of which will be employed by LFDB

- 1) “Build strong and lasting relationships with partners...” (Kovach, 2010; Wilson, 2008)
- 2) “Discuss the goals and perspectives of all parties involved to help develop [contextual understanding of the cultural, institutional, and socio-economic aspects of resource use]” (Djenontin and Meadow, 2018; Westwood et al., 2020).
- 3) “Initiate co-production at the earliest possible phase of research (i.e. problem identification) and ensure that it is sustained throughout...the entirety of the process” (Reed and Abernathy, 2018)

- 4) “Respect and value the knowledge of all those working together on a given project and recogniz[e] that everyone is of equal importance” (Hickey et al., 2018)



Figure 5. Interviews held between marine stakeholder and myself (as an intern with LFDB) during my Fall 2021 field season that reflects several characteristics of a community-based approach: forming relationships with and understanding perspectives of community members in Chile.

## **Section II. Use of Knowledge Co-production in Community-based Programs**

*So what happens when organizations have taken these best practices into account, and what are the outcomes that result?*

Throughout the literature, there is very little documentation of knowledge co-production processes used during the process of program design with most of the literature geared towards knowledge co-production used in stakeholder engagement in academic research. There also is a gap in the literature to identify measurable outcomes that isolate knowledge co-production as a factor in achieving desired socio-ecological outcomes (The specific challenges that create this

issue are discussed further in Section IV). Throughout the literature and a public meeting I attended with White House Office of Science and Technology Policy's Dr. Alondra Nelson titled, "Co-Producing Knowledge with Communities: Equity in Federal Research Programs" in May 2022, scientists continue to acknowledge how collaboration and open dialogue between scientists, managers, practitioners, and communities are aimed to co-produce knowledge to make research more actionable, more inclusive, and more effective in obtaining our desired outcomes (Armitage et al., 2011; Cooke et al., 2021; Nelson, 2022). Yet, despite these suggestions and continued efforts of open dialogue between these actor groups and Western management practices that have engaged with local communities, we continue to see 1) the failure to define the relationship between knowledge co-production and successful socio-ecological outcomes backed by measurable outcomes and 2) continued failed decision-making and regulations that still reflect a previous way of thinking and that lack equity in the research process despite this engagement.

While discussion of community engagement efforts and the failure to identify direct linkages to successful socio-ecological outcomes have been discussed in the broader literature (Eaton et al., 2021; Yua et al., 2022), I offer the following two suggestions for LFDB to begin addressing this issue in order to contribute to a framework that has the potential to support these falsely claimed relationships amongst knowledge co-production processes and socio-ecological outcomes:

- 1) LFDB needs to understand that for knowledge co-production to occur, pre-existing knowledge based on what one thought to be true must be replaced by newly co-produced knowledge learned from community stakeholders that has been either created through

their experiences, passed generationally, or a combination of the two. Once this takes place, maybe then, we can begin to measure long-term outcomes attributable to this process (Wilmer et al., 2018).

- 2) LFDB should identify a system to indicate that knowledge has been re-constructed amongst parties and that this same knowledge is the one being reflected in program design.

I make these suggestions to demonstrate how it is not the implementation of knowledge co-production processes alone that contributes to successful outcomes, but the social learning and the evidence-based decision-making that arises from knowledge co-production that permits successful collaboration between actors to move forward with a program that in-turn influences environmental success. By including local knowledge and lived experiences of individuals in program and organizational development, LFDB can address knowledge gaps and contribute to social learning across our staff and local communities.

### **Section III. Inherent Challenges to Using Knowledge Co-production**

While knowledge co-production has the potential to contribute to social learning that ensures more successful community-based approaches, this process alone is not a panacea for addressing complex socio-environmental issues. Knowledge co-production presents a vast set of inherent challenges to its practitioners, its implementation, and continual use. Understanding these challenges and potential solutions will help inform LFDB's development of their programs and to ensure they address these challenges from the beginning stages of their operations. In this



section, I will provide details about four inherent challenges to knowledge co-production and potential solutions to each challenge: 1) contextual differences between actor groups; 2) power inequalities; 3) time constraints to inform LFDB of these issues; and 4) difficulties in measuring the success in knowledge co-production efforts.

First, successful knowledge co-production can be inhibited due to contextual differences between actor groups, including cultural, institutional, and socioeconomic differences. For example, natural resource managers that operate under regulations and permits to manage resources, and Indigenous peoples who manage natural resources under a system of respect and not taking more than needed, may prevent successful knowledge co-production efforts due to the fact that the two groups' ways of knowing and worldviews differ (Peltola et al., 2020). One solution to this issue includes discussing the goals and perspectives of all parties to create a shared understanding of different world views and to integrate diverse types of knowledge into decision-making (Akpo et al., 2015; Castellanos et al., 2013; Djenontin and Meadow, 2018). Next, there is often a challenge related to power dynamics between scientists and users in knowledge co-production processes, as scientists' "expert" knowledge is often privileged over other knowledge, perpetuating inequalities in power and whose voices are reflected in natural resource management. For example, Bojovic et al. (2021) highlights how power inequalities between climate scientists and climate information users led to scientific knowledge being privileged over other users' knowledge. In particular, scientists were paid for their time to conduct knowledge co-production efforts, while stakeholders were expected to volunteer their time. This inequality has the potential to prevent stakeholder participation, and, in turn, inhibit successful knowledge sharing. Privileging "expert" knowledge also removes incentives to participate in collaborative processes for those with less power and whose knowledge has not

been previously represented in management. Several solutions to addressing this issue include 1) valuing and respecting the knowledge of all actors involved with a focus on recognizing the need for equal representation of diverse types of knowledge and 2) compensating those providing knowledge through culturally appropriate means (honorariums, gifts, etc.) (Akpo et al. 2015; Baskin, C., 2005; Hickey et al. 2018)

In a world of increasing uncertainty and rapid change, Western science is seeking to address socio-ecological issues with a sense of urgency through engaging in knowledge co-production processes, yet this urgency is challenged with this approach as knowledge co-production takes a long time in order to develop relationships and trust needed (Beier et al., 2017; Lovbrand, 2011). While I do not believe there is a solution to address the time it takes to develop trust and create relationships, I do believe there are methods for increasing this trust that include engaging in conversations regarding shared power, responsibility, and ownership (Chapman and Schott, 2020) and explicit recognition of different priorities between groups (Crompton, 2019). Lastly, another challenge to achieving successful knowledge co-production, which was mentioned in Section III, is the difficulty of measuring outcomes linked to success in knowledge co-production efforts (Cooke et al., 2020; Yua et al., 2020). To offer a potential solution to address this issue, I present the following example. As a part of a Collaborative Adaptive Rangeland Management Science partnership, rangeland managers and ranchers held meetings to discuss knowledge related to rangeland management with a goal of understanding how co-produced knowledge informed management decision making (Wilmer et al., 2018). After managers disseminated findings that suggested high cattle stock density was negatively impacting cattle production objectives, ranchers continued practicing a one-herd high-stock density grazing approach due to their pre-existing knowledge. This study illustrates how

communication occurs with ranchers interacting with scientific knowledge but illuminates how this knowledge does not replace the already-present knowledge of ranchers exemplified by their continued high-density stock approach. The failure to incorporate this scientific heading by ranchers is what led Wilmer et al. (2018) to suggest further sharing and acknowledgement of scientific knowledge with other knowledge holders (i.e. ranchers) to facilitate trust and relationship building between stakeholder groups. This example led me to the suggestions I proposed in Section III to address this issue through 1) ensuring knowledge is being re-constructed through social learning and 2) identifying a framework to integrate and be sure this re-constructed knowledge is reflected in program design.

To summarize, cultural differences between actor groups, power inequities, time constraints, and difficulties in measuring the success in knowledge co-production efforts are four challenges that LFDB need to consider when it comes to program development and implementation, as to address these challenges and serve as an organizational model for other nonprofits aimed at true community-based approaches.

### **Individual Story Maps for use on LFDB's Website**

Through stakeholder interviews and participatory mapping with marine stakeholders in Chile, I created individual story maps for use on LFDB's website to showcase the lived experiences, stories, and needs identified by community members in the communities where LFDB works to viewers and potential donors. I created these stories using open-ended interview responses and photos/videos/articles provided by interview participants. My goal was to create stories that reflect real people in marine fisheries in Chile and their experiences to highlight how their needs align with LFDB's mission. Following the creation of these individual story maps, I followed-up with each individual to be sure these depictions of themselves best reflect what they want the world to know about them. This is an example of co-producing knowledge demonstrated by my original prompts of my interviews (informed by past co-identified issues), sharing of community member knowledge, sharing of my perceptions of their knowledge, and their revisions needed to reflect accuracy and to clarify any nuances. Below, I have included screenshots of the website page I have created for LFDB, titled "Our Community" (Fig. 6,7, & 8), followed by links for the four individual story maps that are found through the website.

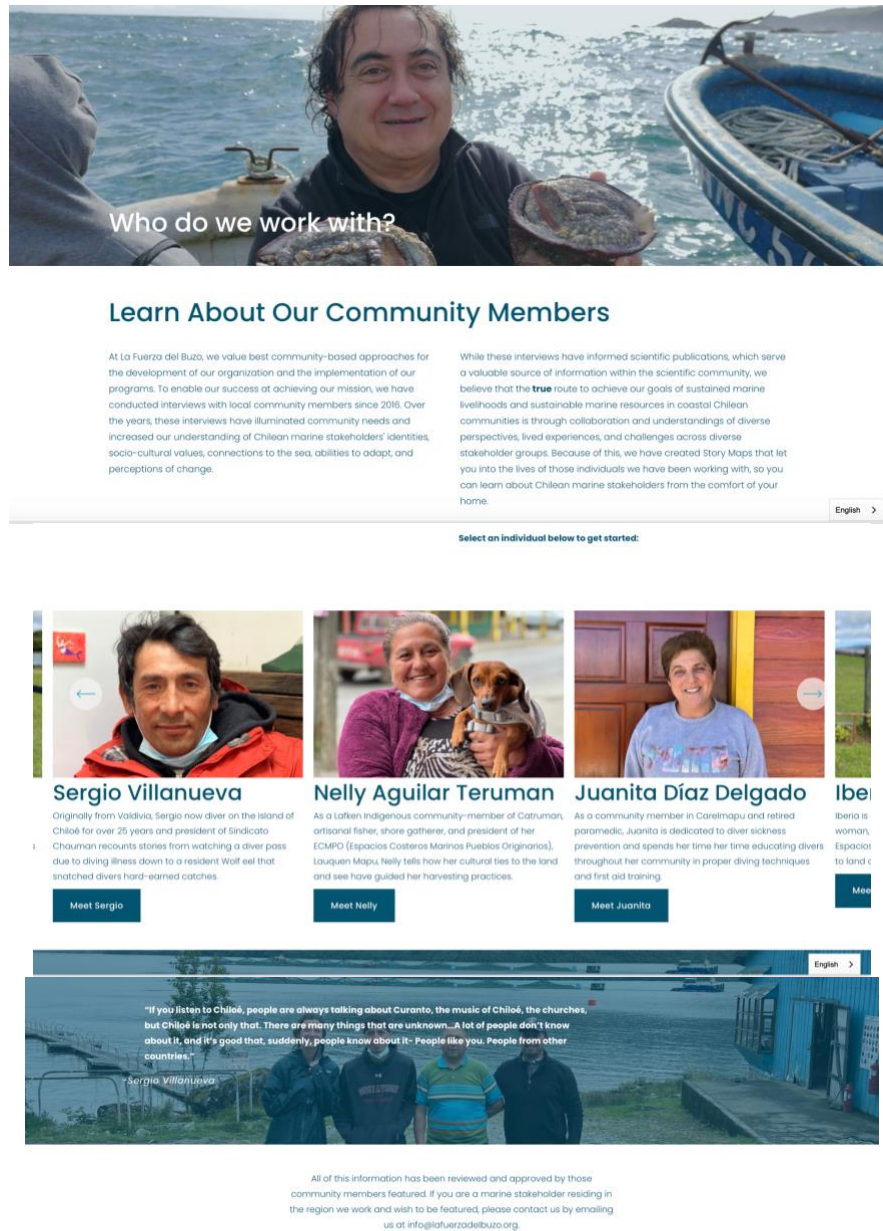


Figure 6. Screenshots of LFDB’s website where one can access the Individual Story Maps.

## Juanita Díaz Delgado

Link to individual story map:

<https://isu.maps.arcgis.com/apps/Cascade/index.html?appid=046a199e379f4aacbc37f62e9c78087d>

### **Nelly Aguila Teruman**

Link to individual story map:

<https://isu.maps.arcgis.com/apps/Cascade/index.html?appid=1f8ba077ab0a4d93a74e27321e903f26>

### **Sergio Villanueva**

Link to individual story map:

<https://isu.maps.arcgis.com/apps/Cascade/index.html?appid=a94a5df45dbb470f89e172774689a8ae>

### **Iberia Teruman**

Link to individual story map:

<https://isu.maps.arcgis.com/apps/Cascade/index.html?appid=4269543ec6954a8d8397679b7e274bb9>

## **Reflection**

In this section, I will reflect on what this project has provided me in my long-term career objective, I will then briefly describe the benefits and limitations to my project. And lastly, I will reflect on two of the activities I have completed that I believe are the most beneficial for my professional development: 1) reviewing knowledge co-production literature; and 2) independent teaching over the course of four semesters.

### **What does this all mean for my future career?**

As my original goal was to become a conservation coordinator, it is important that I link what was learned to not only my ability to achieve this desired career, but what I have learned since starting a new position in the social science field. Prior to graduation, I had accepted a position working as a social scientist in the marine context and much of the knowledge and many lessons learned from my applied project are directly applicable in my day-to-day duties in this new position. For example, in this position I am working with Tribes to improve research relations that influence knowledge reflected in marine management decision-making. In the few months I have been in this position, I have voiced the need to improve methods to reduce the extractive nature of the practices of the organization with which I work. Currently, the desire to fly into remote fishing villages to hold community meetings for a week or less is not necessarily a continued process that lends itself to true relationship building. Time, persistence, trust, and continued efforts are necessary achieve this desire to improve historic harmful scientific methodologies. I plan to use knowledge learned during the completion of my project to address these concerns by advocating for continued relationship-building efforts and for the need to

include different forms of knowledge in marine management decision-making both in this position and after.

### **Benefits and Limitations of Project within Communities**

Following this project, I have had time to reflect on what I believe are both the benefits and the limitations of this project. While this project greatly benefitted my personal growth and career goals, I want to focus this section on the benefits and limitations of this project directly within the communities I worked. The benefits to completing this project include the Individual Story Maps that highlights individuals and their stories within the community at a local level. I believe that these stories created through knowledge co-production processes have the ability to not just empower these community members, but to incentivize donors to support LFDB to achieve their mission and benefit community members. I also believe that the other greatest benefit to this project includes the personal connections made across communities that can be built upon to further trust and relationship-building efforts needed at LFDB. To understand these benefits will allow me to take away and transfer certain ideas, like the power of Story Maps and the importance of connections across contexts, and apply knowledge learned to future scenarios I may encounter.

The limitations to this project include its extractive nature and the current funding limitations of LFDB that prevent timely implementation of programs needed to address issues. First, throughout and after my project I could not help but notice the extractive nature of my project despite my best efforts to avoid this trap embedded within the social sciences. For example, I met most individuals with which I conducted interviews usually once and never again. This practice does not reflect the efforts needed to establish trust nor to gain a deeper



understanding of the lives of these individuals. While this limitation was due to travel restrictions of the COVID pandemic and the short window of a Master's project in which I operated, I suggest the need to increase time spent in communities and interacting with interview participants to address this limitation. Next, as many of the issues that LFDB is designed to address have a sense of urgency with predicted increased uncertainty and rapid climate change, community members often wanted to know when they would see issues addressed by LFDB. This limitation to funding reflects a greater challenge of institutions that lack constant, on-the-grounds monitoring efforts to address issues as they happen in real time. To address this limitation, I suggest the need for an on-the-ground staff at LFDB (preferably a community member) with proficiency in English and Chilean Spanish to work across borders on these issues and to communicate community needs both in real time. My hope is that my understanding of these limitations to this project have provided me the ability to critically analyze what is necessary to improve future scenarios to achieve desired socio-ecological outcomes in marine contexts.

### **The Knowledge Co-production Enigma**

I created a white paper focused on the process of knowledge co-production as an output of my thesis. Throughout my review of the academic literature to further my understanding of this concept, I began questioning the legitimacy of this concept. Throughout my readings, I was exposed over and over to researchers suggesting to use this process in research, natural resource management, and community engagement; however, not one piece of literature I read speaks to the proven effectiveness of this process alone to contribute to the socio-ecological goals the paper's authors sought to achieve as supported by the broader literature (Eaton et al., 2021; Yua

et al., 2022). For example, in Armitage et al. (2011), the authors compare the decision-making processes in Dolly Varden fishery closures in the Arctic between the 1986 closure in the Big Fish River and the 2006 closure in the Rat/ Peel River to support their argument that co-management policies formed through knowledge co-production led to successful socio-ecological outcomes. While managers believed overfishing led to the decline in Arctic Dolly Varden stocks that resulted in a 1986 Arctic Dolly Varden fishery closure, traditional knowledge passed through generations revealed habitat change as the main factor influencing declines in Arctic Dolly Varden. Managers then used this traditional knowledge to inform co-management policies and regulations that allowed for more adaptive practices of Indigenous groups during the 2006 closure of the Rat/Peel River Dolly Varden fishery, and the authors appointed the success and observed stock increases to knowledge co-production that occurred through integrating traditional knowledge into the co-management management strategy. However, while Armitage et al. (2011) makes the claim that managers engaged with Indigenous communities through a variety of meetings and incorporated their knowledge into adaptive management plans, this article lacks the Indigenous perspective of their perception of these co-management strategies to reflect their knowledge, priorities, at what stages and capacities they were involved in management decision-making, and whether or not resulting regulations are backed in equality. Armitage et al. (2011) is, as is often found throughout the knowledge co-production literature, making a false claim that this Indigenous engagement (a tool of knowledge co-production) and integrating traditional knowledge to improve the management of the fishery is knowledge co-production itself. What Armitage et al. (2011) and many others fail to do is to isolate knowledge co-production as a single factor in order to attribute actual success of this process to achieve socio-ecological goals.

I originally provided some examples within my white paper for LFDB where this process was successful in community engagement and in research, but I kept returning to the question of whether or not these examples were demonstrating accurately the potential of knowledge co-production or whether this concept is yet another academic term and concept that is used to suggest that Western scientists are collaborating with stakeholders to produce new knowledge instead of continuing to use local knowledge and traditional knowledge for Western forms of management. While I morally support collaborative research, and I think we can all agree that coming together to discuss ideas for progress and to increase equity is important in an ever-changing world, I am left after my review of knowledge co-production literature asking questions related to the utility of this approach, such as: Is this approach actually effective? How can we prove this approach is effective? Are measurable outcomes the only way to prove successful outcomes? How can this approach be used in systems and social structures and institutions that do not have in place a mechanism to integrate this approach? Is this approach something that is going to set LFDB and their ability to achieve their goals apart from other NGOs and how? How do I myself as a social scientist move forward in my career advocating for an idea that has no proof for its true effectiveness, but that feels right?

I don't have any answers to these questions, but I am using this line of thinking and questioning already in my job that I took on prior to graduation. With the agency that I am currently working for (and I would like to leave this unnamed), I have been reviewing a document that is aimed to increase community engagement and knowledge co-production in local communities. This document is designed to explain base levels of engagement in fisheries management across communities to identify ways to further increase this engagement as socio-ecological systems are faced with unprecedented change and uncertainty. Some individuals on

my team have suggested the need to insert traditional and local knowledge identified through knowledge co-production processes into this document to increase representation of different knowledge sources across the community sketches that are depicted in this document. While I support the need for these forms of engagement across different knowledge sources, this support changed when I understood that the federal group to which this document was presented has suggested the desire to place this document in an online, interactive format. In my mind, I cannot help but be against this idea of collecting local knowledge and traditional knowledge that will likely not be equally depicted in this document, as these communities have yet to be involved in the creation of this document thus far, and more importantly, that these Indigenous communities described in this document will be unable to access the document online. I believe the reasons for this document are aimed at continued forms of management rooted in colonialism under the guise of “knowledge co-production,” which I fear will contribute to further inequalities where those that lack resources to access the documents (even if their knowledge is engaged with) will not reap the benefits associated with the collection of this knowledge. The creation of this document seems to me as a misguided approach that is not informed by deliberate knowledge co-production processes but that is, rather, bound by federal regulations that do not allow for true knowledge co-production to take place.

Ultimately, I want to use my knowledge of the process of knowledge co-production in community engagement and the critical questions I have raised to continue questioning the legitimacy of these processes and our ability to institutionalize them to 1) ensure that knowledge co-production is performed in a non-extractive way; and 2) to achieve equality in the representation of whose knowledge is reflected in management strategies. I want to do what is in my power to speak up for failed and hidden attempts to continue perpetuating systems that

further increase societal inequalities and that affect local communities' access to marine resources and sustained livelihoods. I aim to do my part to assist in the development of marine conservation strategies that ethically incorporate and privilege local actors to protect our world's oceans.

### **Overcoming adversity**

Next, independently instructing my own Introduction to Sociology course over four semesters has contributed to my professional development. Through teaching SOC 1101, I gained confidence and aptitude for public speaking, something I have historically struggled with throughout my education. I recall freezing, blacking out, and running out of the classroom in tears when expected to give a presentation to fellow students in my high school English class. This seemingly uncontrollable reaction to public speaking continued through my undergraduate career. It was not until I graduated and hiked the entire Appalachian Trail by myself that I realized my ability to talk to and relate to individuals from diverse backgrounds with unique perspectives on life. I found myself not only effectively communicating amongst different groups of strangers, but doing so in such a way where people seemingly enjoyed my company. This experience gave me a voice that I have since strived to carry with me to a professional arena, but I knew doing so would entail uncomfortable interactions and a lot of dedication.

To become a better public speaker, I specifically asked the Department of Sociology, Criminology, and Social Work at ISU to allow me to teach my own Introduction to Sociology course that would force me to stand up in front of a large audience to speak. I had several mechanisms for dealing with the nerves that I experienced with my position as an independent instructor at first. First, I recognized the fact that I speak with more confidence in one-on-one

interactions to guide how I approached speaking to a large group. By making eye-contact with one individual student at a time and creating space for one-on-one discussions within this larger group, this allowed me to deal with the nerves and the overwhelming feelings that stemmed from speaking in front of the large group. Next, I found that I overcame these nerves through recognizing my role as instructor and the power that I held in this position. By recognizing this power, I felt more at ease of being challenged in my role and began to understand the capacity that my students believed I held to fulfill and succeed in my role as an instructor. This gave me confidence in my abilities, and overall, these two strategies allowed me to overcome my nerves and influenced my newly-found comfort in speaking in front of large groups. From this experience, I have learned the ability we hold as individuals to grow out of our weaknesses through practice, perseverance, and escaping our comfort zones. Ultimately, I want to use these new found skills to serve an integral role as a communication leader at the forefront of implementing powerful marine conservation strategies that incorporate local actors to protect our world's oceans.

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