

Building Sustainable Communities: Collaboration

BUILDING SUSTAINABLE COMMUNITIES: COLLABORATION

Module 3: Collaboration

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COURSE INTRODUCTION



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All five modules can be found here:

Module 1: [Introduction to Community Engagement](#)

Module 2: [Information Gathering and Sharing](#)

Module 3: [Collaboration](#)

Module 4: [Monitoring and Evaluation](#)

Module 5: [Creating Connections for the Future](#)

ACKNOWLEDGMENTS

About Us

This open access course was developed by members of the Environmental Sustainability Research Centre (ESRC) at Brock University. Located in St. Catharines, Ontario, the ESRC is a transformative and creative transdisciplinary community dedicated to research and education advancing environmental sustainability locally and globally. In working towards this mission, the ESRC:

- *encourages research excellence in environmental sustainability by faculty, librarians, and students;*
- *enables enriching educational experiences in environmental sustainability; and,*
- *engages in knowledge mobilization and fosters knowledge impacts.*

More information about the ESRC, including its undergraduate and graduate programming, is available [here](#).

The ESRC is uniquely positioned to create the five open access modules about Building Sustainability Communities: The Impact of Engagement. It is one of the few universities worldwide to be located in a UNESCO Biosphere Reserve. It is also deeply committed to the enterprise of sustainability science. Throughout the modules, you will see examples of how the ESRC, and our partners are working to build sustainable communities.

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 - *Amanda Smits (Project Manager), Centre Administrator, ESRC*

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Dr. Derek Armitage is Professor and Associate Director in the School of Environment, Resources and Sustainability, University Waterloo. His research aims to support coastal communities and their partners to sustainably manage oceans, coasts and fisheries using ideas from cooperative (co-) management, adaptive governance and knowledge co-production. He has led a wide range of initiatives and working groups in several major research partnerships, including the Community Conservation Research Network, the OceanCanada Partnership, and most recently, a new global partnership on the vulnerability and viability of small-scale fisheries. He also serves on the Independent Science Panel for the Government of New Zealand's Sustainable Seas Science Challenge. He is the co-editor of several books, including 'Adaptive Co-Management: Collaboration, Learning and Multi-

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Bridget McGlynn is recent graduate of the Master of Sustainability program and a research assistant at the ESRC. Her thesis research investigated collaborative governance for flood planning in the Wolastoq / St. John River Basin through social network analysis. This research was conducted in partnership with WWF-Canada through the Partnership for Freshwater Resilience. Her research interests focus on performance and social-ecological fit of collaborative governance.

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completed the Certificate in Knowledge Mobilization through the University of Guelph. Amanda was recently awarded with the Faculty of Social Sciences Staff Student Experience Award and was the 2019 recipient of FOSS's Staff Award for Community Engagement.

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Samantha Witkowski is a recent graduate of the Master of Sustainability program and a Project Coordinator at the ESRC. Her thesis research focused on monitoring and evaluation (M&E) strategies in environmental planning and management. Within this, she investigated stakeholder perceptions of key performance indicators for M&E in two different environmental management contexts. Her research was conducted in collaboration with the Niagara Parks Commission, as part

of the Excellence in Environmental Stewardship Initiative. In her current position at the ESRC she supports the activities of several innovative partnerships and projects within the centre.

MODULE 3 INTRODUCTION



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LEARNING OBJECTIVES

Learning Objectives

After reviewing each of the lessons in this module, you will learn how to:

- Comprehend terminology associated with 'working together' and why it is essential to navigating contemporary sustainability challenges.
- Describe the qualities that influence (positively and negatively) 'working together.'
- Illustrate the process by which partnerships evolve.
- Explain different approaches to 'working together' for community sustainability.
- Critically assess the benefits and challenges of 'working together.'

LESSON 1: EXPLORING TERMS THAT DEFINE 'WORKING TOGETHER'

Lesson 1: Exploring terms that define 'working together'

A TERMINOLOGICAL QUAGMIRE

At the outset of the lesson it is important to acknowledge that terminology associated with ‘working together’ in relation to sustainable communities is vast. This includes: strategic alliance, collaboration, coordination, partnership, coalition, co-management, adaptive co-management, co-governance, and so on. Often, these terms overlap and intersect in a variety of ways. While the imprecise or interchangeable use of terms may not appear to be cause for concern, it is of paramount importance in science and society. In science, precision is required regarding the phenomena being studied. In application, each term carries vastly different connotations. For example, the expectations of participants in a strategic alliance may be very different from co-management. Further muddling this situation is that terms associated with working together are not mutually exclusive. We next consider a few of the most frequently used terms with specificity and then examine their positioning along key conceptual dimensions. Expand the following terms to learn more about each approach:



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POWER, PROCESS, & INVOLVEMENT

Up to this junction in the lesson a deliberate attempt has been made to be precise with terminology. While the terms partnership, collaboration, and co-management (governance) are definitely not synonymous, they are certainly related. Plummer and FitzGibbon (2004) suggest the umbrella term co-operative to signal increasing participation by civil society in management and decision-making. This is very much in the spirit of our focus on community engagement for building sustainable communities.



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Adapted from Plummer and FitzGibbon (2004).

Conceptually, it helpful to consider the dimensions which underpin terms under this co-operative umbrella. The first dimension is representation and addresses who is involved. The second is power and specifies some of the many ways in which it manifest. The third dimension regards the process. It illustrates the spectrum of formality and implications for negotiation and timing. These dimensions help us to precisely consider the arrangement of ‘working together’ that we are describing, and by extension the most appropriate term. Explore the diagram above. Each example is a case study we will explore throughout the coming lessons.

WHY ARE CO-OPERATIVE APPROACHES ESSENTIAL?

Having worked our way through some of the common terms used for working together and considered key underpinning dimensions, we turn our attention to *why* co-operative approaches are *essential*.

The ‘command and control’ approach conventionally employed by the state has been successful in many aspects relating to the environment and sustainability. For example, regulations in many jurisdictions led to reduced pollution and in some instances even better biodiversity outcomes, at least in the short term. While necessary in some situations, command and control approaches have also been shown to, at times, have steep social and environmental costs (Armitage et al., 2011).

Holling and Meffe (1996, p. 328) observed that this situation has led to the “pathology of natural resource management”, which they describe as “...a loss of system resilience when the range of natural variation in the system is reduced encapsulates the unsustainable environmental, social, and economic outcomes...” In reflecting upon how to address this pathology, Armitage and colleagues (2012, p. 2) argue that “decision making must now accommodate diverse views, networks and hybrid partnerships among state and non-state actors, and must include opportunities for shared learning.”

Co-operative approaches, which collectively signal increasing participation by civil society in management and decision-making, are especially well suited to navigating the contemporary problem domain for several reasons.

The contemporary problem domain is characterized by complexity, uncertainty and change. Co-operative approaches have been highlighted in response to these characteristics because they can be flexible, iterative/adaptive, and learning oriented (Folke et al., 2005; Armitage et al., 2009).

Knowledge to meet complex and uncertain circumstances is widely distributed and “the emphasis on collaborative process is intended to help overcome the institutional (e.g., power differences among actors) and epistemological challenges associated with the “integration” of traditional and scientific knowledge” (Armitage et al., 2012, p. 7).

As identified previously, the contemporary problem domain necessitates a mechanism to accommodate a variety of actors who hold diverse perspectives as well as distinctive (and often contrasting) interests. Co-operative approaches provide just such a mechanism. Backstrand et al. (2010) explain the rationale for greater involvement includes increased legitimacy, enhanced effectiveness and equity, and greater access to expertise. In fact, Grêt-Regamey et al. (2021, p. 290) have recently demonstrated that “... the number of actors (actors richness) and the diversity of the abilities and skills that characterize their management capabilities (actors’ functional diversity) are key determinants of the resilience of social-ecological systems to global change.”

Finally, expectations regarding legitimacy and accountability are changing (Armitage et al., 2012). Mutual

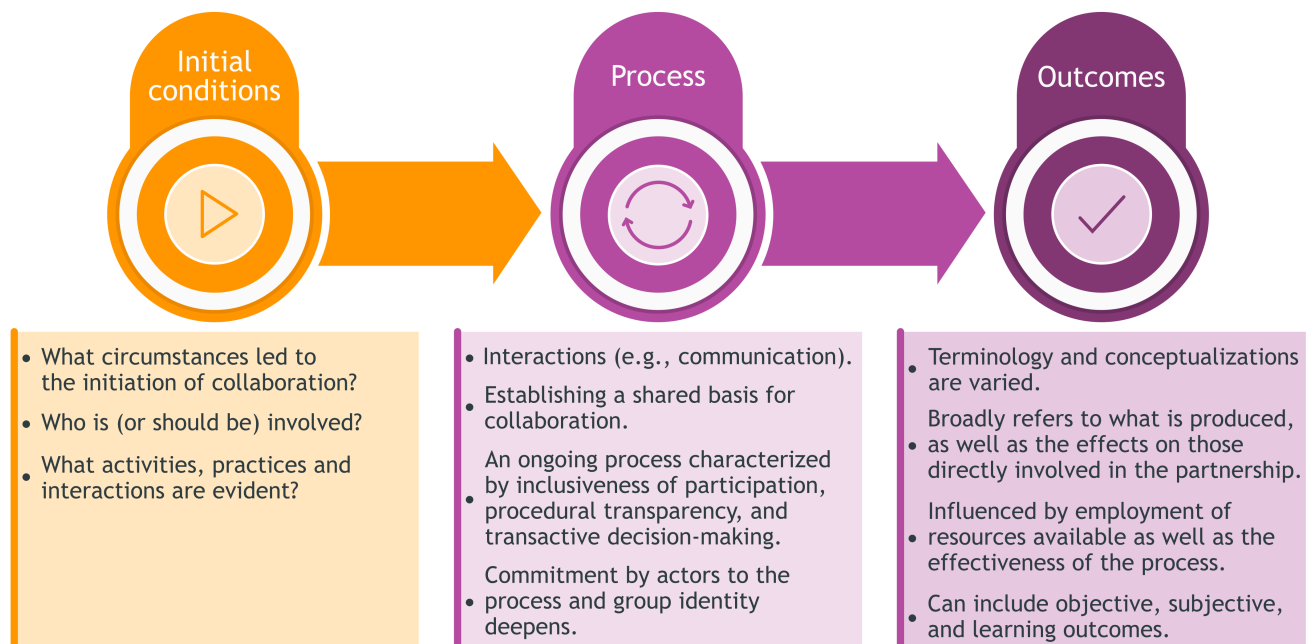
accountability is integral to co-operative approaches. Legitimacy stems from both the actors involved as well as the integrity of the process. Beyond formal regulatory mandates, both accountability and legitimacy comes from informal relationships of trust (Brinkerhoff, 2005).

LESSON 2: THE PROCESS OF COLLABORATING

Lesson 2: The process of collaborating

ELEMENTS OF COLLABORATION

In building upon the first lesson, we now explore to how collaboration occurs. Understanding how collaboration takes place in the contemporary problem domain has been of keen interest to scholars. We start this lesson by presenting general elements of collaboration. These common elements are synthesized from scholarly works that have conceptualized various forms of working together (e.g., Selin & Chavez, 1995; Plummer & FitzGibbon, 2004; Ansell & Gash, 2008). Thereafter, we shift our attention to features specific to a type of collaboration and consider how they occur in practice through a series of case studies.



Three elements of how collaboration occurs.

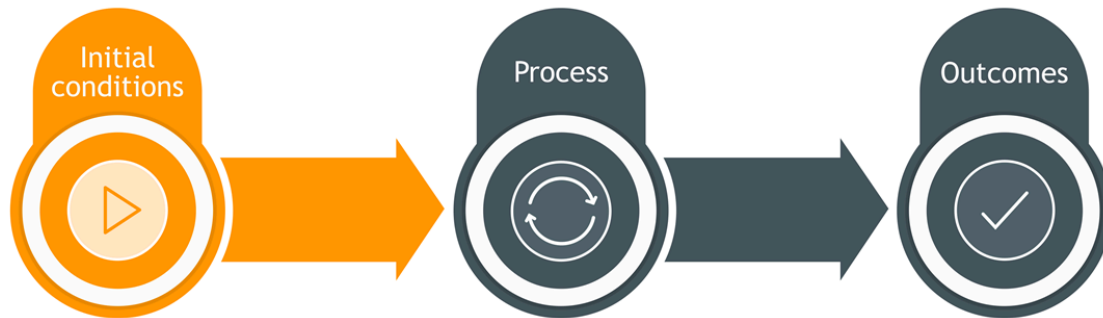
CONTEXT

At the outset, it is important to acknowledge that all collaboration occurs within a particular setting or context. In this course we concentrate on the setting of sustainable communities. This is one of many settings in which collaboration may occur and sustainable communities themselves are understood in different ways. Context matters (Honadle, 1999; Edwards & Steins, 1999; Plummer et al., 2020; Sargent & Waters, 2004) and shapes collaboration (e.g., Plummer, 2009; Plummer & Hashimoto, 2011).

We can unpack the context of collaboration in sustainable communities (a social-ecological system) by asking some key questions, which direct attention to several considerations (Honadle, 1999; Edwards & Steins, 1999; Sargent & Waters, 2004):

- **What is the problem or resource context?**
 - Here we draw attention to discreteness, temporal, natural, mobility and other boundaries.
- **What is the spatial boundaries of the collaboration?**
 - Here we draw attention to collaboration occurring in a specific area and how that area is defined (i.e., by political jurisdictions, physical landscapes, etc.)
- **What is the social context?**
 - Here we draw attention to culture, power, salience and governance.
- **How embedded is the situation?**
 - Embeddedness, here, considers the centrality to the sustainable community. Consideration is directed to the dependency upon the resource, psychological attachment, and openness to opportunities.

INITIAL CONDITIONS



- What circumstances led to the initiation of collaboration?
- Who is (or should be) involved?
- What activities, practices and interactions are evident?

While scholars have labeled it differently, there is broad agreement about collaboration involving a point of inception. Examples of this departure point include ‘antecedents’ (Selin & Chavez, 1995; Plummer et al., 2017); ‘pre-condition’ (Plummer & FitzGibbon, 2004); and ‘starting conditions’ (Ansell & Gash, 2007). In synthesizing across conceptual and empirical models of collaboration, we can discern some common guiding questions.

1. What circumstances led to the initiation of collaboration?

There are several such circumstances from which collaboration has emerged. A real or imagined crisis may precipitate actors to collaborate, such as wildfire events (Bodin & Nohrstedt, 2016) or legislative changes (Kallis et al., 2009). A new opportunity for individuals to contribute in a way not previously possible may present itself. Collaboration may be incentivized. Collaboration may itself be legally required. The spatial extent of the collaboration may be influenced by geographic space of a crisis or by political boundaries.

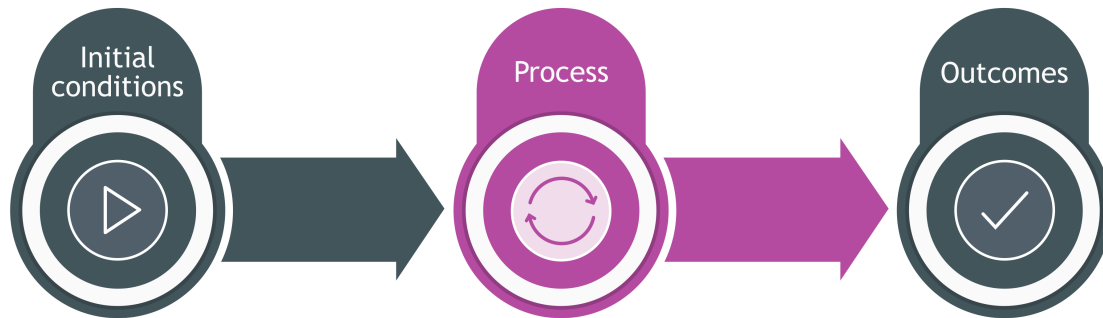
2. Who is (or should be) involved?

In asking this question consideration is given to different types as well as actors at different levels or jurisdictions.

3. What activities, practices and interactions are evident?

Here, attention is directed to what is occurring 'on the ground', the manner or way it customarily takes place, and previous interactions among actors. Leaders, existing networks and trust (or lack thereof) from may or may not exist.

PROCESS



- Interactions (e.g., communication).
- Establishing a shared basis for collaboration.
- An ongoing process characterized by inclusiveness of participation, procedural transparency, and transactive decision-making.
- Commitment by actors to the process and group identity deepens.

Particular characteristics of the collaborative process can be specific to process type, but we can also synthesize some common aspects general to all:

Interactions

Interactions among individuals (often face-to-face) is the quintessential characteristic of the collaborative process. Attention to all aspects of respectful communications and openness are key. For example, the timeline of communicating with Indigenous rights holders, which needs to occur prior to other stakeholders.

Establishing a shared basis for collaboration

Common problem definition, recognition of mutual interdependence, and shared understanding are characteristics early in the process and galvanize the rationale for collaboration.

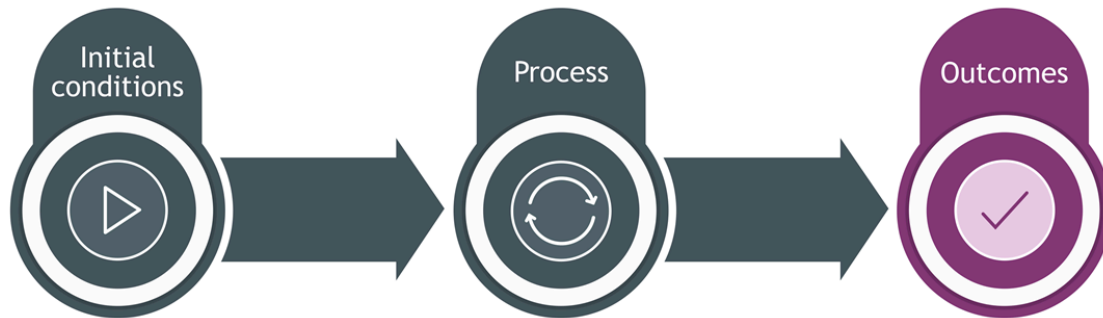
Inclusiveness of participation, procedural transparency, and transactive decision-making

Extensive scholarship has been dedicated to the design of collaborative processes. Characteristics here entail inclusiveness of participation, procedural transparency, and transactive decision-making.

Commitment by actors to the process

As the collaborative process evolves, the commitment by the actors to the process and group identity may deepen. Here we see characteristics of direction setting (establishing goals), structuring (formalizing relationships), engaging in shared actions, learning, and ultimately monitoring and evaluation.

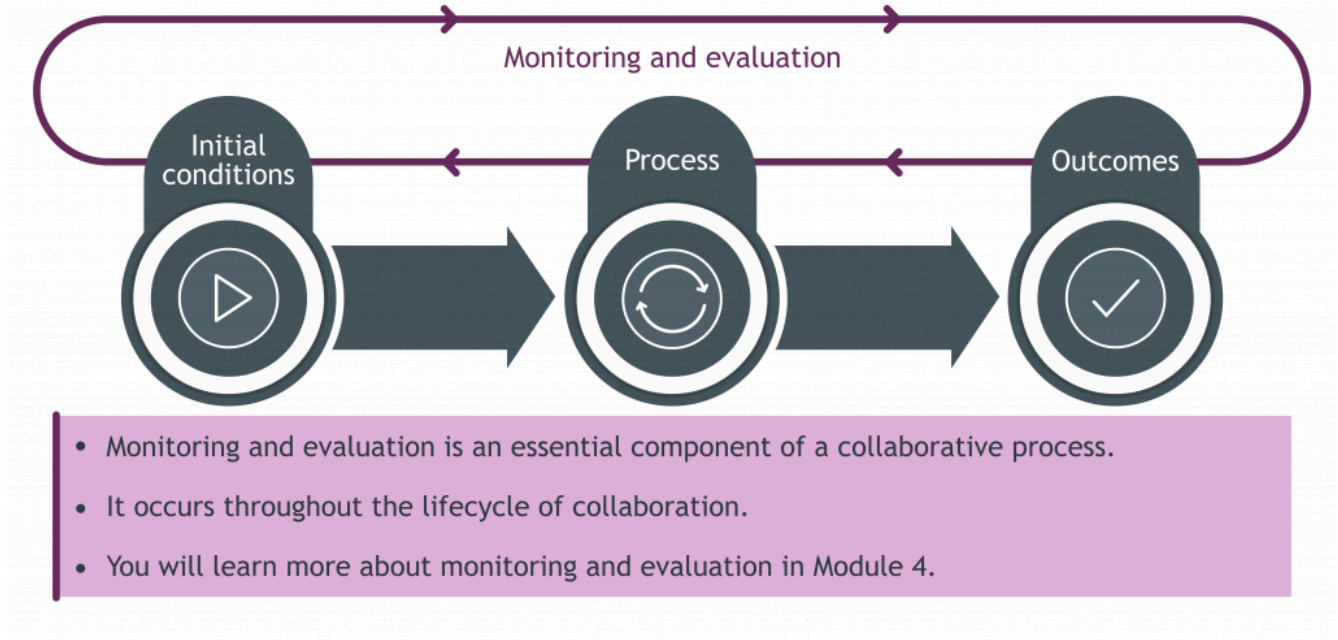
OUTCOMES



- Terminology and conceptualizations are varied.
- Broadly refers to what is produced, as well as the effects on those directly involved in the partnership.
- Influence by employment of resources available as well as the effectiveness of the process.
- Can include objective, subjective, and learning outcomes.

A final aspect of conceptualizing collaboration entails the consequences from the collaborative process. Terminology and conceptualization by scholars in this regard varies considerably. The term outcome is often used in this regard. Sargent and Water (2004) for example, identify three categories of outcomes: objective outcomes, subjective outcomes, and learning outcomes. Other scholars (e.g., Plummer et al., 2017) have differentiated outcomes into results (tangible and intangible) and effects. Broadly, outcomes from collaboration refers to “what is produced as well as the effects on those directly involved, or the resulting changes or impacts from the collaboration” (Plummer et al., 2020; 2021).

PROCESS OF COLLABORATING



In bringing the information presented thus far in the lesson together, we can conceptualize how collaboration generally occurs. In addition to bringing together the individual components of collaboration, the arrows in the diagram above illustrate important relational aspects. Especially important is the iterative feedback that occurs in which the outcomes from collaboration shape the future process. The next module highlights the important of monitoring and evaluation.

With this broad understanding of how collaboration occurs, we now turn our attention to details which distinguish approaches employed in sustainable communities. We specifically focus on higher education institution (HEI)-community partnerships, collaboration, and adaptive co-management.

PARTNERSHIP CASE STUDY

Niagara Adapts: Collaborative Climate Change Adaptation, Planning and Implementation

[Niagara Adapts](#) was an innovative 2-year partnership between 7 municipalities in the Niagara Region and Brock’s Environmental Sustainability Research Centre that began in 2019 and was led by Dr. Jessica Blythe. The partnership was designed to build innovative climate solution and implement them into municipal climate change adaptation plans to build resilience for future generations. Throughout the partnership, the Environmental Sustainability Research Centre and 7 climate change coordinators and managers met for 8 educational workshops on topics such as climate impacts and risk assessments, vulnerability assessments, interpreting climate research, stakeholder engagement, monitoring and evaluation, and implementing climate change adaptation plans, to name a few. The partnership came to a close in the summer of 2021, but all municipalities now have the tools to implement effective climate adaptation plans that will allow their communities to thrive.



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Overview of Niagara Adapts

What circumstances led to the initiation of the initiative?

Canadians are feeling the impact of climate change, and in Niagara is experiencing flooding, heatwaves, and climate extremes. Municipalities have been identified as key players in the fight for climate solutions.

Who is involved?

The Environmental Sustainability Research Centre, Brock University and 7 municipalities in the Niagara Region.

Outcomes of the Partnership

Municipalities worked together to pool resources to engage in a climate adaptation process tailored to the Niagara Region, which included several workshop led and facilitated by researchers at Brock University.

COLLABORATION CASE STUDY

Collaboration for Climate Change Adaptation in the Wolastoq River, New Brunswick

Simon J. Mitchell, Vice President Resilient Habitats, World Wildlife Fund-Canada, has been leading collaborative relationships between WWF-Canada and local actors in the Wolastoq River Basin for almost ten years in order to address a variety of pressing environmental concerns surrounding river health. Recently, they have collaborated with multiple municipalities to produce regional climate change adaptation plans.



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Overview of WWF's collaboration in the Wolastoq

What circumstances led to the initiation of the initiative?

Small municipalities were concerned about the impacts of climate change but did not have the capacity to address climate change at the local level. WWF-Canada, having worked in the region for some time, was in a position to facilitate relationships to begin collaborative regional vulnerability assessments.

Who is involved?

World Wildlife Fund – Canada in collaboration with municipalities in the region.

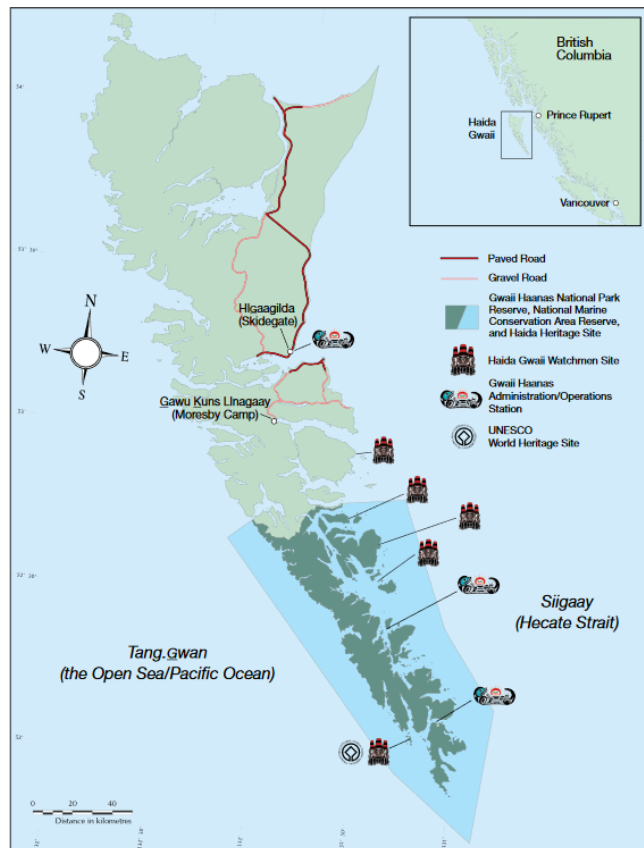
What are the outcomes?

Vulnerability assessments have been completed, and adaptation plans are ongoing with the explicit goal of implementation.

ADAPTIVE CO-MANAGEMENT CASE STUDY

Ecosystem Based Management (EBM) in Gwaii Haanas

The EBM Working Group is an on-going partnership of the Council of Haida Nations, Parks Canada, and Fisheries and Oceans Canada, along with other academic and non-academic collaborators.



Map of Gwaii Haanas (Gwaii Haanas Gina 'Waadluxan KilGuhlGa Land-Sea-People Management Plan, 2018)

The project objective is to co-develop an evaluation framework to assess fisheries and marine resources in Gwaii Haanas and support collaborative and adaptive ecosystem-based management

The Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site Gwaii Haanas is a recognized leader in integrated and adaptive management, ensuring that protection, restoration and ecologically sustainable use opportunities are mutually achieved.



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Overview of EBM in Gwaii Haanas

What circumstances led to the initiation of the initiative?

The Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site Gwaii Haanas is a recognized leader in integrated and adaptive management, ensuring that protection, restoration and ecologically sustainable use opportunities are mutually achieved.

Who is involved?

The Gwaii Haanas Agreement, which was signed in 1993, describes how the terrestrial area of Gwaii Haanas will be managed cooperatively by the Haida Nation and the Government of Canada through the Archipelago Management Board (AMB). ***Although the two parties have differing views on ownership of Gwaii Haanas, they agree that:***

The Gwaii Haanas Marine Agreement (2010) further established the Gwaii Haanas National Marine Conservation Area Reserve (NMCAR). This agreement expanded the AMB's role to include planning, operation and management of the Gwaii Haanas marine area, and increased the board's membership from four to six. The AMB is presently comprised of three representatives of the Council of the Haida Nation and three representatives of the Government of Canada (two Parks Canada, one Fisheries and Oceans Canada).

What are the outcomes?

The Land-Sea-People (Gina 'Waadluxan KilGuhlGa – 'Talk About Everything') Management Plan was ratified in 2018 and provides the planning context for the ecosystem-based management process. The [Land-Sea-People \(LSP\) Management Plan \(2018\)](#) includes: (1) a vision for the future; (2) guiding principles grounded in Haida law; (3) a zoning plan driven by key ecological and cultural targets; and (4) goals, objectives and measurable targets for management of fisheries and marine resources.

Currently, the LSP is being operationalized:

- With reference to LSP objectives and guidance from the AMB, a technical team has collaboratively developed a suite of governance, socio-economic, cultural and ecological indicators.
- A process of testing and evaluating fisheries of cultural and economic importance is underway in collaboration with Haida rights holders, government, and industry.
- Outcomes of evaluative process will determine status of key stocks in Gwaii Haanas and support AMB efforts to collaboratively and adaptively manage fisheries and other marine resources.

COLLABORATION PROCESS CONCLUSIONS

This lesson has brought together our conceptual understanding of how collaboration generally occurs in the contemporary problem domain with illustrative examples in practice. In concluding this lesson, we highlight some aspects about how collaboration occurs that have thus far been implicit, including:

- While conceptualizations are heuristic to identify elements and their relationships that manifest collaboration, they are an abstract and/or ideal representation of how they occur in practice.
- Conceptual presentations of collaboration often take on a cyclical appearance as a reflection of their highly interactive and non-linear nature (Ansell & Gash, 2008). The dynamism of collaboration is widely recognized (e.g., Plummer, 2009).
- Finally, as Caffyn (2000) observes, partnerships have a lifecycle. Upon reaching the conclusion of the intended collaboration the participants may elect to continue, revise the collaboration or discontinue. Sometimes even when collaboration stops, the capacity built endures and may be activated if required in the future.

RESOURCES FOR FURTHER LEARNING

Resilience: What is adaptive co-management?



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Fikret Berkes, Natural Resources Institute, University of Manitoba and Canada Research Chair, explains adaptive co-management.

Supplementary reading

Read the Assembly of First Nations' [Co-Management Definitions Guide](#).

LESSON 3: WHAT MAKES COLLABORATION WORK OR NOT?

Lesson 3: What makes collaboration work or not?

WHAT MAKES COLLABORATION WORK?

The first lesson in this module gave precision to use of key terms (partnership, collaboration, co-management, governance) and identified key dimensions underpinning their manifestation. It highlights why “co-operative” approaches are essential to the contemporary problem domain under study. The second lesson addressed a general conceptual model of working together for building sustainable communities as well as case studies of specific forms by which it occurs.

As alluded to in the first two lessons, it is imperative to be aware of the differences between analytical specificity in academic scholarship and messiness apparent in reality. Both are important for learners wishing to engage community for sustainability.

In an effort to gain insights into qualities that influence collaboration, both positively and negatively, we sought out individuals with extensive experience across various contexts. We posed two questions to each person and asked them to illustrate their answer using an example from their experience:

1. What qualities or ingredients are most important for collaboration to succeed?
2. What qualities or ingredients cause collaboration to go horribly wrong?

Please proceed to the next page to find the responses to these questions across three unique case studies.

PARTNERSHIP CASE STUDY

[Niagara Adapts Case Study: An Interview with Dr. Jessica Blythe](#)

What qualities or ingredients are most important for collaboration to succeed?

Inclusion, trust, and mutual respect are critical for successful interdisciplinary collaboration (Blythe & Cvitanovic, 2020). Research is showing that these feelings are essential for building effective interdisciplinary research teams and organizations (Ledford et al., 2015). Critically, qualities of trust and respect are vital for nurturing innovative solutions (Blythe et al., 2017). In general, people do not feel safe sharing innovative ideas unless they are among trusted colleagues.

Strong leadership is another essential quality of successful collaboration. This quality can be closely linked to the first. For example, in reflecting on more than a decade of collaborative water research, Brown et al. (2015) attribute successful collaboration to leaders who nurtured empathy and respect between team members. Female leaders may be particularly well suited to fostering collaborative environments built on inclusion, trust, and mutual respect. For example, Nielsen et al. (2018) recently found that gender diversity can drive scientific discovery. They attribute the boost in innovation to the cognitive diversity associated with gender balanced teams. They describe cognitive diversity as the varied ways in which women frame problems, which can drive creative solutions for complex challenges (Nielsen et al., 2018).

Finally, clear and shared goals are essential for successful collaboration. Joint framing of the purpose and objectives of a partnerships enables a successful process (Lang et al. 2012). This phase can consist of the co-identification and description of the real-world problem, the joint formulation of research objectives, the co-design of a conceptual and/or methodological frameworks, and the building of a collaborative research team (Lang et al., 2012).

What qualities or ingredients cause collaboration to go horribly wrong?

Managing expectations is very important. Without clear and shared expectations or expected outcomes, partnerships may be set up for disappointment. You can mitigate these risks by transparent about all aspects of the partnership. For example, clear memorandums of understanding (MOUs) can be a useful tool to manage expectations. Before beginning a partnership, conducting a survey with partnerships about expectations can

be another useful way to understand what each partner is hoping to achieve. Plummer et al. (2021) identify four essential inputs for partnerships: financial resources, human resources, motivations for partnership, and transparency. These attributes are a useful touch point for avoiding miscommunications or conflict associated with poorly managed expectations.

COLLABORATION CASE STUDY

Collaboration for Climate Change Adaptation in the Wolastoq River, New Brunswick



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ADAPTIVE CO-MANAGEMENT CASE STUDY

Ecosystem Based Management (EBM) in Gwaii Haanas



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INGREDIENTS FOR SUCCESSFUL COLLABORATION

The responses to our questions provide many rich insights into the key ingredients that make collaborative successful. Equally important is learning from such experiences about the qualities that erode collaborative. How do the observations from these rich experiences align with the work of scholars studying collaborative?

Understanding the qualities which influence collaborative initiatives aimed at the environment and/or sustainability has been the subject of much scholarship. In fact, there have been multiple reviews undertaken for this purpose. A comprehensive meta-analysis on collaborative governance across domains was conducted by Ansell and Gash (2007, p. 543). They identified variables influencing success to include “prior history of conflict or cooperation, the incentives for stakeholders to participate, power and resources imbalances, leadership, and institutional design.”

Another example comes from the review of adaptive co-management by Armitage et al. (2009), who synthesize 10 conditions for success.

Recently, a systematic mapping review of collaboration in environmental management and governance was conducted by Feist et al. (2020). They a long list of qualities, with the most prominent being “... trust building, social learning, dialogue, and active involvement...” (Feist et al., 2020, p. 1).

Finally, Plummer et al. (2021) conducted a Canadian national study to identify the aspects and qualities that make up a good partnership between HEIs and communities. They list multiple aspects and qualities of a high-performing HEI-community partnership, breaking down the qualities between inputs that are dedicated to the partnership, the actual process by which the partnership operates, as well as the outcomes or resulting impacts from the partnership.

As you can see from the **bolded text** in these tables, there are multiple ingredients for success that are common across different types of collaborative efforts. For example, going into a new initiative it is important to clearly define the problems and aims of the initiative. Factors that affect the process are also similar across initiatives, such as building trust, mutual respect, shared-decision making, commitment to the project, and so on. Having a successful collaborative initiatives can be hard work, but working to keep these qualities in check will make the process enjoyable as well as rewarding.



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QUALITIES THAT NEGATIVELY INFLUENCE COLLABORATION

The absence of a prominent quality or condition may mean the collaborative initiative will not realize its' full potential. Perhaps most alarmingly, the absence of the key ingredients for success can "... have strongly negative implications for the sustainability and resilience of the social–ecological system" (Armitage et al., 2009, p. 100).

Social capital has perhaps garnered the most attention in this regard. Social capital encompasses "networks together with shared norms, values and understanding that facilitate cooperation within or among groups" (OECD, 2001, p. 41). Dale and Newman (2008, p. 18) offer a cautionary observation: "As community approaches to sustainable development initiatives grow in popularity, it can be observed that many such initiatives begin with high hopes and large commitments of social capital only to slowly fall apart in the face of individual long-term stress, a lack of access to external resources, and sometimes conflicting government policies and incentives that actually hinder or destroy the existing social capital at the community level".

Finally, it is imperative to be aware of feedback from present participation to future involvement. Ansell and Gash (2007, p. 557) observe the cycle or iteration through collaborative stage "... can positively or negatively influence further collaboration." Our next lesson explores this process of collaboration in detail.

LESSON 4: BENEFITS AND CHALLENGES OF COLLABORATION

Lesson 4: Benefits and Challenges of Collaboration

COLLABORATION FOR BUILDING SUSTAINABLE COMMUNITIES

In the final lesson in this module, we turn our attention to the benefits that can be gained from collaboration to build sustainable communities. Of equal importance, we consider some of the challenges to anticipate. Collaboration can be very rewarding and fruitful, but it can also be extremely frustrating and unproductive.

We continue our efforts in this module to provide perspectives on the benefits and challenges of collaboration from practice and theory. To start, we again turn to individuals with extensive experience across various contexts. We again pose two questions to each person and asked them to illustrate their answer using an example from their experience:

1. What is the greatest benefit from collaboration to building a sustainable community?
2. What is the greatest challenge of collaboration in the context of sustainability?

Please proceed to the next page to find the responses to these questions across three unique case studies.

PARTNERSHIP CASE STUDY

Niagara Adapts Case Study: An Interview with [Dr. Jessica Blythe](#)

What is the greatest benefit from collaboration to building a sustainable community?

Sustainability in general, and climate change in particular, are complex, dynamic, and cross cutting challenges. It is difficult, if not impossible, for any single individual or disciplinary group to identify and understand climate solutions and the dynamics of potential impacts and unintended consequences they may entail (Brondizio et al., 2016).

Therefore, one of the benefits of collaboration is that collaboration can support the development of robust and nuanced, rather than overly simplistic, solutions. This is essential in climate research and practice in order to account for the multidimensional nature of climate change and avoid maladaptation (Barnett & O'Neill, 2010). Working together allows us to tackle bigger questions and challenges than we could as individuals. Developing robust and nuanced climate adaptation plans requires collaboration and the inclusion of a range of stakeholders, perspectives and knowledge systems. Collaboration between individuals with widely different, even polarized, perspectives has been shown to generate higher quality research than traditional disciplinary approaches alone. As Crow and Dabars (2017, p. 482) effectively point out, “biologists alone cannot solve the loss of biodiversity, nor chemists in isolation negotiate the transition to renewable energy.”

What is the greatest challenge of collaboration in the context of sustainability?

In my experience, the benefits of collaboration greatly outweigh the challenges. However, there are some challenges of co-operation in the context of sustainability that are important to account for in project planning. First, collaborative projects take longer. For example, most collaborative projects begin with a team building phase, in order for team members to become familiar with one another, to foster a culture of inclusion, trust, and respect, and to co-identify relevant sustainability challenges (Lang et al., 2012). This phase can take months or years to complete effectively. Knowledge in collaborative partnerships is co-created, which is often a slower process in comparison to disciplinary approaches. In partnerships like Niagara Adapts, for example, that aim to develop climate change adaptation plans, knowledge co-creation involves iterative cycles of research, stakeholder engagement, formal council meetings and approvals, among other activities. Finally,

collaborative projects often aim to create knowledge that can be applied in the real world. Developing effective implementation strategies and effective monitoring and evaluation protocols requires an additional investment of time.

A second key challenge is that collaborative, or interdisciplinary, projects can be more difficult to fund than classic disciplinary research (Bromham et al., 2016). Therefore, diversifying your funding sources and investing in the team's capacity to secure funding (e.g., through grant writing workshops) are potentially useful activities for collaborative partnerships.

Summary of Niagara Adapts

Niagara Adapts was a 2 year partnership between 7 municipalities in the Niagara Region and Brock's Environmental Sustainability Research Centre that assisted municipalities with building innovative municipal climate change adaptation plans. Although the majority of the Niagara Adapts partnership occurred during a global pandemic, this partnership is a true success story of a university working with municipalities to generate innovative climate change solutions that are tailored to the Niagara Region. Niagara Adapts was a success for many reasons, but the main one being that all partners brought their unique set of skills and resources to the table which broadened all participants' knowledge of climate change and how to adapt to it in their respective communities. The following are some examples of outcomes of the partnership:

Town of Lincoln

- [Corporate Climate Change Adaptation Plan](#) accomplished through the Niagara Adapts partnership
- [Video](#) highlighting the importance of the partnership and adaptation plan

City of St. Catharines

- [Corporate Climate Change Adaptation Plan](#) accomplished through the Niagara Adapts partnership
- [Video](#) highlighting the importance of the partnership and adaptation plan

Town of Pelham

- [Corporate Climate Change Adaptation Plan](#) accomplished through the Niagara

Adapts partnership

- [Video](#) highlighting the importance of the partnership and adaptation plan

COLLABORATION CASE STUDY

Collaboration for Climate Change Adaptation in the Wolastoq River, New Brunswick



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Summary of Overview of WWF's collaboration in the Wolastoq

WWF-Canada is working in collaboration with small municipalities to complete and implement climate change adaptation plans. This collaboration is providing the necessary human and financial capital for this work to be completed.

For collaboration to succeed, actors need to be adaptable and develop shared goals. The facilitator needs to be a good listener as different groups may speak about the same topic differently. For example, climate change impacts different groups in different ways, so understanding differences in goals and priorities among diverse actors is essential for pursuing projects that address community needs and produce meaningful outcomes.

Collaboration can assist in producing tangible outcomes as the involved parties have contributed to the plan and be invested in implantation. Productive relationships among diverse group can assist in creating an environment for long term solutions.

ADAPTIVE CO-MANAGEMENT CASE STUDY

Ecosystem Based Management (EBM) in Gwaii Haanas



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Summary of EBM in Gwaii Haanas

The Gwaii Haanas context provides an excellent example of adaptive and collaborative management framed by principles of Indigenous governance. The experience with Gwaii Haanas provides a model for successful collaboration in other contexts. The Land Sea People plan is a fundamental document as it is an outcome of collaboration between the Haida, the Government of Canada, and industry. Initiatives guided by the LSP plan, like the EBM evaluation framework, reflect the collaborative principles and aim to meet cultural, socio-economic, governance, and ecological objectives

BENEFITS OF COLLABORATION

Our interviewees bring to life some of the benefits and challenges of collaboration in building sustainable communities. Their insights are complemented by researchers who have studied collaboration in the contemporary problem domain of focus.

With due acknowledgement of the overlap between outcomes and impacts presented in lesson three, we highlight the benefits of co-operation that are well established by scholars.

We start with the outcomes (results) identified in the recent systematic mapping review by Feist et al. (2020).

Another example comes from the successes identified through the systematic review of adaptive co-management by Plummer et al. (2012).

Finally, Caldwell et al. (2015) provide a summary of the benefits realized through community-based participatory research partnerships, touching upon both personal challenges one might experience, organizational challenges, as well as challenges working with the community.

As you can see from the **bolded text** in these tables, there are multiple benefits that can occur through collaboration. These benefits can be seen on the physical and/or social environment, and they may also directly impact the people involved in the co-operation. For example, collaborative efforts often promote the participation and involvement of relevant stakeholders and rights holders in matters that affect them. By involving all relevant stakeholders and rights holders in a project, the outcomes can be applicable to a variety of people (Estrella & Gaventa 1998). Additionally, through a collaborative process, decision-making strategies have a higher likelihood of being implemented, as people learn to negotiate and agree upon solutions (Emerson et al., 2012; Ulibarri, 2015). Although many of the outcomes of collaborative initiatives are context specific, there are multiple benefits that can be realized from any project.



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CHALLENGES TO COLLABORATION

Collaboration offers many benefits and has been identified as “... a pathway for sustainability” (Lozango, 2007, p. 370). Despite the positive upside of collaboration, it also comes with numerous challenges and failures.

The systematic review by Plummer et al. (2012) identify several factors contributing to failures of adaptive co-management.

The Challenges of Collaboration in Environmental Governance (Margerum & Robinson, 2016) dedicates an entire volume to detailing these matters and their resolution.

Finally, Caldwell et al. (2015) also look at the challenges of community-based participatory research partnerships from the community partners perspective. Again, they list personal, organizational, and community challenges often experienced in this context.

A few interesting and important words of caution when critically assessing the benefits and challenges of collaboration from both practice and scholarship. Often these can stem from a particular experience or come from a particular case study. Context may be critical, and transferability may be problematic. Speculation regarding benefits and challenges is also commonplace, with systematic reviews revealing the amount of claims absence of empirical evidence (see Plummer et al., 2012; Feist et al., 2020). The **bolded text** in these tables displays the multiple challenges that are common across different types of co-operative efforts.



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MODULE 3 REFLECTION AND ASSESSMENT

Module 3 Reflection and Assessment

MODULE 3 LEARNING CHECK

Learning Check

After reviewing each of the lessons in this module, you should now be able to:

- Comprehend terminology associated with 'working together' and why it is essential to navigating contemporary sustainability challenges.
- Describe the qualities that influence (positively and negatively) 'working together.'
- Illustrate the process by which partnerships evolve.
- Explain different approaches to 'working together' for community sustainability.
- Critically assess the benefits and challenges of 'working together.'

MODULE 3 KEY TAKEAWAYS

Key Takeaways

- Terminological quagmire
 - Terminology associated with 'working together' is messy and often imprecisely employed
 - These terms are not synonymous but are closely related and it is helpful to create distinction by considering underpinning conceptual dimensions
- Collaboration (all approaches addressed) are imperative to navigating the contemporary problem domain of sustainable communities
- A variety of qualities make collaboration effective and efficient as well as unproductive
- The process of collaboration
 - Important components include: context, initial conditions, process, outcomes/impacts
 - Feedback shapes the iterative process of collaboration
 - Many approaches to collaboration are employed for sustainable communities
- A series of case studies shared experiences with different approaches to collaboration for sustainable communities, highlighting distinctions and similarities among the approaches

- Collaboration is not a panacea
- Collaboration offers many benefits and challenges

RESOURCES FOR FURTHER LEARNING

Supplementary reading

Academic journal articles:

Cradock-Henry, N. A., Greenhalgh, S., Brown, P., & Sinner, J. (2017). [Factors influencing successful collaboration for freshwater management in Aotearoa, New Zealand](#). *Ecology and Society*, 22(2).

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Collaboration – a path towards a more sustainable future



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MODULE 3 ASSESSMENTS



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MODULE 3 REFLECTION



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