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COMPLEX COOPERATIVE NETWORKS CASE STUDY: BRITISH COLUMBIA

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Cooperatives and partner organizations in British Columbia (BC) have initiated a collaboration to strengthen a network supporting cooperative development across the province, leading to the establishment of the Alliance for Cooperative Development in 2021. This report evaluates BC's cooperative economy by examining the building blocks of complex cooperative networks and presenting a conceptual framework to inform strategic policy and development efforts. The framework is applied to BC's early-stage ecosystem for cooperative and social economy development.

Cooperative networks often emerge from specific territories and reflect unique local contexts, meaning there is no universal approach to their formation. However, key elements such as network infrastructure (WHAT), the purpose of cooperation (WHY), the agents involved (WHO), and their contributions (HOW) help explain network dynamics. Broader outcomes and contextual variables are also considered.

The report then examines BC's inter-cooperation landscape, identifying that while many building blocks are present, the network remains in its early stages. Multi-stakeholder programs focused on infrastructure, capacity building, and education sustain critical connections, but challenges include limited capital, a fragmented financial ecosystem, insufficient public sector engagement, and a lack of diversity among coordinating organizations. This has placed undue pressure on a few dedicated institutions.

Key recommendations for enhancing the network's complexity and sustainability include: establishing a more robust institutional framework to reduce reliance on individual relationships, leveraging the untapped potential of BC's credit unions to mobilize resources and foster deeper financial integration, and securing long-term governmental support for cooperative development. Strategic actions, such as co-creating policies, developing cooperative funds, and engaging marginalized communities, will be critical in building a resilient cooperative economy in the province.

The Complex Networks for Cooperative Economies framework is the outcome of a partnership to assess the robustness of British Columbia's cooperative network. The International Centre for Cooperative Management at Saint Mary's University led the research in cooperation with the British Columbia Cooperative Association (BCCA) and the Alliance for Cooperative Development between 2023 -24. This material is a concise synthesis based on thorough research and analysis, intended to offer a clear and focused summary of the framework.

The authors of this article are affiliated with the International Centre for Cooperative Management (ICCM) at Saint Mary's University, a globally recognized hub for interdisciplinary research, education, and knowledge exchange that supports the growth and sustainability of cooperative enterprises worldwide.

What does intercooperation stand for?

Intercooperation, or "cooperation among cooperatives", is the 6th Principle of the Statement on the Cooperative Identity by the International Cooperative Alliance. The principle is a practical expression of the cooperative value of solidarity.

ICA's Statement on the Cooperative Identity

<i>Definition</i>	A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise.
<i>Values</i>	Cooperative values: Self-help, Self-responsibility, Democracy, Equality, Equity, and Solidarity. Cooperators' ethical values: Honesty, Openness, Social Responsibility, and Caring for Others.
<i>Principles</i>	(P1) Voluntary and Open Membership; (P2) Democratic Member Control; (P3) Member Economic Participation; (P4) Autonomy and Independence; (P5) Education, Training, and Information; (P6) Cooperation among Cooperatives; (P7) Concern for Community.

Retrieved from the International Cooperative Alliance, 1995.

Intercooperation expresses that 'cooperatives serve their members most effectively and strengthen the cooperative movement by working together through local, national, regional, and international structures' (ICA, 1995). However, aside from the role of conventional second-tier cooperative associations and federations, which usually unite and represent organizations with similar membership bases or productive sectors, one can identify multiple other structures of intercooperation that compose the phenomenon of complex cooperative networks.

The 6th Principle shows two dimensions of the nature of cooperatives. The first dimension is that they are economic entities trading goods and services. The second is that they are social entities of members who relate positively to other cooperatives in the way they conduct business. In joining a cooperative, members are not only helping to build their own cooperatives but the wider cooperative movement. They cooperate with other cooperatives to create wealth for the many, not personal wealth for the few through unbridled market competition. Members benefit not only from the actions of their own cooperative but from the impact of its cooperative engagement and trade with other cooperatives (ICA, 2017, p. 71).

WHAT ARE (COOPERATIVE) NETWORKS?

Beyond the boundaries of a single enterprise, organizations establish relationships with one another to achieve shared goals through personal bonds and various contractual frameworks. Forming a network combines collective interests to achieve outcomes that individual organizational participants could not normally accomplish on their own (Provan & Kenis, 2008). In the context of cooperatives, each one is, by design, a network among members. When individual cooperatives connect with other cooperatives and values-aligned partners, they amplify their collective approach into broader networks of mutual support.

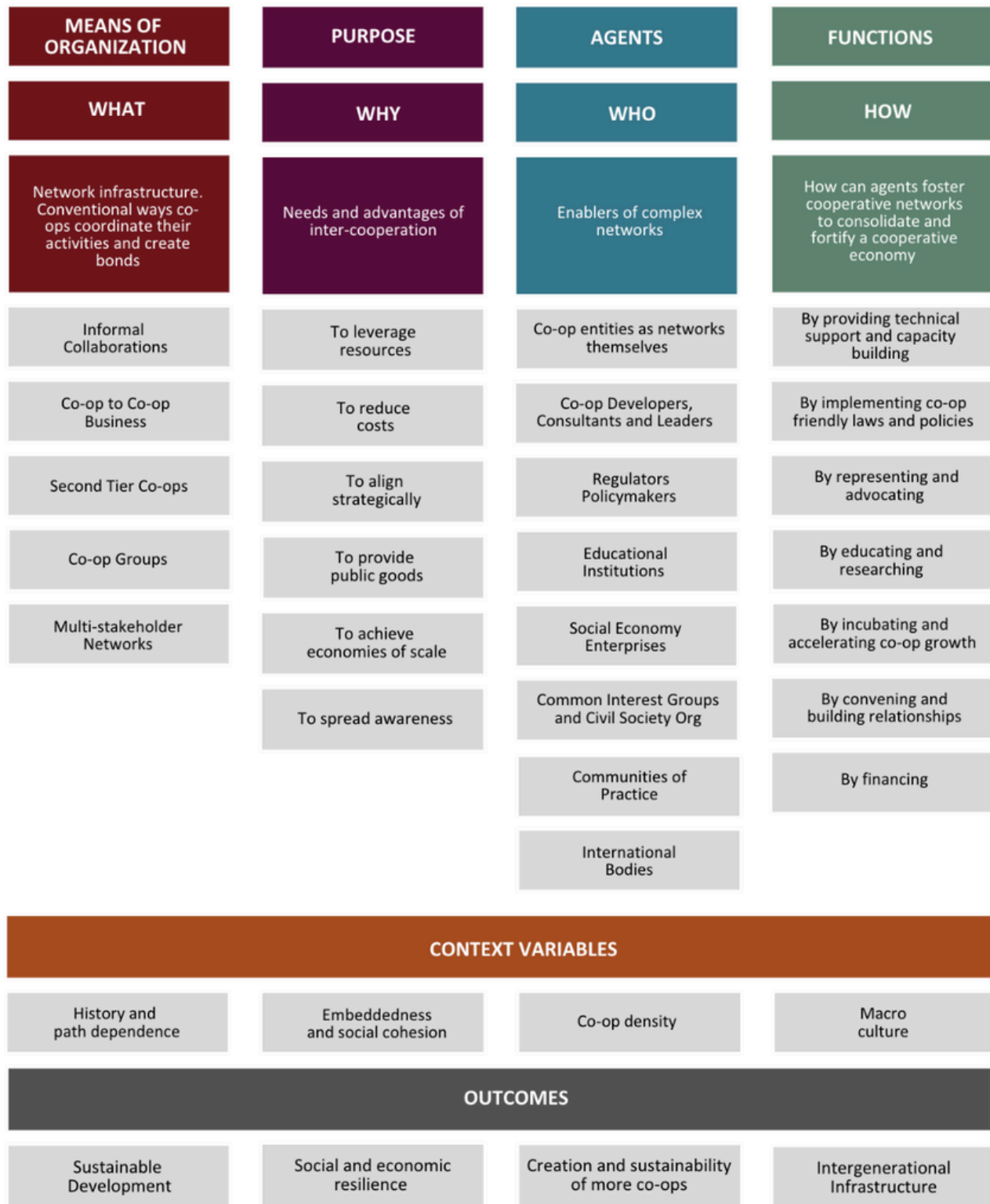
Networks are structured in various ways depending on the participants' aspirations. They range from "co-op only" networks to those that extend "beyond co-ops" by introducing relationships with other agents. These networks can encompass informal relationships or formal multi-partner arrangements. The infrastructure of each network adapts to the emerging needs of its members and tends to evolve over time, encompassing various network configurations. Ultimately, we aim to create a cooperative economy—an economic system where enterprises are owned and operated by the people who use their services or by the workers themselves. This cooperative economy is part of the broader social solidarity economy, as it primarily relates to the economic activities developed by cooperatives.

The social and solidarity economy encompasses enterprises, organizations and other entities that are engaged in economic, social and environmental activities to serve the collective and/or general interest, which are based on the principles of voluntary cooperation and mutual aid, democratic and/or participatory governance, autonomy and independence and the primacy of people and social purpose over capital in the distribution and use of surpluses and/or profits, as well as assets, that social and solidarity economy entities aspire to long-term viability and sustainability and to the transition from the informal to the formal economy and operate in all sectors of the economy, that they put into practice a set of values which are intrinsic to their functioning and consistent with care for people and planet, equality and fairness, interdependence, self-governance, transparency and accountability and the attainment of decent work and livelihoods and that, according to national circumstances, the social and solidarity economy includes cooperatives, associations, mutual societies, foundations, social enterprises, self-help groups and other entities operating in accordance with the values and principles of the social and solidarity economy (International Labour Organization, 2022).

In cooperative economies, the exchange system among cooperatives is grounded in the principle of intercooperation, facilitated by complex networks that connect them. These networks act as the architecture and infrastructure of the cooperative economy. Networking is a powerful strategy for strengthening regional cooperative economies, creating an enabling ecosystem that supports the formation of new co-ops and enhances the sustainability of existing ones. While these networks are often tied to specific geographic regions, they can transcend spatial boundaries, operating across borders or in cyberspace. As a result, complex networks and cooperative economies function on scales ranging from the local to the global.

The elements that constitute cooperative networks vary from region to region, adapting to their purpose and contextual specificities. To deepen our understanding of this ever-evolving dynamic, we identified and organized the elements of complex cooperative networks into a comprehensive framework, comprised of building blocks that can be mixed and matched for real-world applications. While not every network will feature all these elements, incorporating a wider variety typically leads to a stronger network. The complete framework on Figure 1 offers a detailed overview of complex cooperative networks framework, along with key parameters for evaluating their real-world applications.

FIGURE 1. COMPLEX COOPERATIVE NETWORKS FRAMEWORK



See annex for the captions.

CASE STUDY: FRAMEWORK UTILIZATION IN BRITISH COLUMBIA



British Columbia (BC) has a thriving cooperative sector, with 466 of Canada's 5,605 active non-financial cooperatives (Statistics Canada, 2021) spanning industries such as housing, agriculture, energy, and community services. Key players include Modo, Kootenay Co-op, Vancity, and the Cooperative Housing Federation of BC, which supports nearly 15,000 co-op homes. Notable regions like Nelson, a "co-op town," have evolved into a networked ecosystem of its own. The sector benefits from regional associations like the BC Cooperative Association, Upper Columbia Cooperative Council, and Cooperative Housing Federation of BC (CHF BC) along with national and international partnerships. Recent efforts to foster cross-sector collaboration, such as the formation of the Alliance for Cooperative Development, aim to strengthen the co-op ecosystem further.

While certain organizations actively participate in cross-sector programs and partnerships, navigating diverse networks, many operate within isolated silos, often by sector or geography. A positive shift has occurred in recent years as various cooperative development and education initiatives converged, leading to the establishment of the Alliance for Cooperative Development in 2021. This Alliance brought together several cooperative-supporting organizations and allies to strengthen the provincial co-op economy across diverse sectors. This collaborative effort marked a significant step towards breaking down silos and fostering a more interconnected and resilient cooperative landscape in British Columbia.

We mapped key cross-sector connections within BC's cooperative network through interviews, business records, and public documents. Drawing inspiration from Italy's Emilia Romagna region, we focus on cross-sector collaboration for co-op development. While the Alliance for Cooperative Development is still in its early stages, our analysis applies a complex network framework to understand its evolving role and connections.

HIGHLIGHTS

Alliance for Cooperative Development: In early 2021, discussions among key stakeholders, including Am Johal, Director of Simon Fraser University's Vancity Office of Community Engagement, Colin Gusikoski, a partner at Victory Square law Office, and Elvy Del Bianco, then the Cooperative Portfolio Manager at Vancity Credit Union, led to the formation of the Alliance for Cooperative Development, a multi-stakeholder network in British Columbia focused on advancing cooperative activities. Despite the network's informal structure, members collaborated to submit a plan to the provincial government, securing partial funding in 2022. Alliance members include the British Columbia Cooperative Association, Upper Columbia Co-op Council (UCCC), Vancity Credit Union, Simon Fraser University (SFU), Victory Square Law Office, Women's Economic Council, Hua Foundation, British Columbia Libraries Cooperative, Solid State Community Industries, Ethos Lab, Union Co-op Initiative, Squamish Nation, University of British Columbia (UBC), United Food and Commercial Workers International Union (UFCW), Brave Technologies Cooperative, Common Cause, and Gabriola Island Community Investment Co-op.

Bologna Program: Many individuals representing members of the Alliance met during the Bologna Program, an educational initiative established by Vancity and the British Columbia Cooperative Association. Running from 2001 to 2019, the program introduced participants to the cooperative ecosystem in Emilia Romagna, Italy, and inspired cooperative development in British Columbia.

Co-operate Now Program: To further strengthen the provincial co-op economy, Vancity Credit Union, Upper Columbia Co-op Council, and BCCA launched "Cooperate Now" in 2014, following the International Summit of Cooperatives. This bootcamp provided applied education, financial coaching, and business resources for community members and entrepreneurs. It fostered connections among professionals in the cooperative development system, creating a network of graduates who collaborate as

independent consultants. While not a full incubator, Cooperate Now led to the incorporation of new cooperatives, inspiring plans for a comprehensive incubator program. However, its success highlighted a shortage of co-op service providers, prompting the creation of a Community of Practice to mentor young professionals and address capacity challenges.

Cooperative Development Community of Practice (CoP): For years, BC co-op developers operated independently with limited collaboration. To address this, the Community of Practice (CoP) was formed as a collaborative group, with BCCA coordinating efforts to connect co-op developers. The CoP aims to streamline co-op development inquiries and create a platform for developers to learn, collaborate, and mentor emerging talent. New cooperatives, such as CoActive Developments Worker Cooperative, have emerged from this community.

Vancity: British Columbia's cooperative economy benefits greatly from Vancity, a member-owned financial cooperative with over 562,000 members and \$34.3 billion in assets. Since its incorporation in 1946, Vancity has played a pivotal role in cooperative lending, education, and advocacy, contributing around a quarter of financial resources for cooperative development in the province. Its long history of community focus includes launching Canada's first socially responsible mutual fund, the Ethical Growth Fund, and founding the Vancity Community Foundation to support underserved groups. Vancity continues to support key programs and partnerships in the region.

Credit Union Sector: British Columbia's credit union market and cooperative financing industry are thriving, with strong community involvement and a focus on ESG and impact investing. However, despite being structured as cooperatives, many credit unions fail to adequately finance or engage with other cooperatives, often operating in silos. This lack of collaboration weakens synergies and leads to market fragmentation, misaligning with cooperative principles like Principle 6. While large players like Vancity support the cooperative economy, relying on a few key agents creates vulnerabilities in the system, risking sustainability and resilience due to potential shifts in leadership or policies.



Implementing the Complex Network Framework

IDENTIFYING KEY ELEMENTS CURRENTLY PRESENT IN THE BRITISH COLUMBIA NETWORK

MEANS OF ORGANIZATION (WHAT)

Informal Collaborations: Multiple hubs of informal collaboration exist in the province, with particular emphasis on the Co-op Developers Network.

Co-op to Co-op Business: Existing records of cooperative-to-cooperative business through formal partnerships (e.g., P6 Deposit Pool between Vancity and BCCA, CHIP - Co-operative Housing Interest Pool between Vancity and CHF BC).

Second Tier Co-ops: BC hosts many second-tier cooperatives. For example: BCCA, UCCC, Canadian Worker Co-op Federation (CWCF), CHF BC, CMC, Central 1. FCL is active in BC.

Co-op Groups: No cooperative group has been created in the context of the Alliance for Cooperative Development yet. The Co-operators (Ontario-based) is a group active in BC.

Multi-stakeholder Networks: The Alliance for Cooperative Development, the Community Energy Cooperative Network, and the BC Co-op Housing and associated organizations are examples of multi-stakeholder networks.

PURPOSES (WHY)

To leverage resources: Existing networks focus primarily on leveraging financial and educational resources (e.g., Alliance's collective proposal for provincial grants)

To reduce costs: Prominent in co-op housing (e.g., CHF BC Group Buying for cost-effective home improvement) and co-op agri-food (facilitating access to unaffordable services like marketing for producers).

To align strategically: The Alliance for Cooperative Development and the Community Energy Cooperative Canada mark fundamental steps towards strategic alignment.

To provide public goods: Existing networks display a significant repository of publicly accessible knowledge and information. Provincial cooperatives also mobilize to provide affordable housing and renewable energy.

To achieve economies of scale: The commitment to growth is centered on building capacity, bolstering, and scaling existing co-op development programs and partnerships.

To spread awareness: Many co-ops and allies coordinate to reach communities, disseminate educational resources, and support impact research.

AGENTS (WHO)

Co-op Entities: Co-ops are central to this complex network, serving as the primary conduits for connections and resources.

Co-op Developers, Consultants & Leaders: Network connections can be traced back to a group of key cooperative leaders, founders, developers and organizations who strategically leverage institutional channels to advance their vision for the province.

Regulators and Policymakers: The co-op sector has the support of at least one key policymaker within the BC government.

Educational Institutions: Post-secondary institutions like the Saint Mary's University (SMU), SFU, and the British Columbia Institute of Technology (BCIT) are affiliated with provincial co-op networks at varying levels of engagement. UBC is also coming on-side.

Social Economy Enterprises: Non-cooperative organizations, including nonprofits, are active agents of regional networks.

Common Interest Groups & Civil Society Organizations: The Alliance receives support from a national organization promoting women-centered community economic development, representatives from indigenous communities, and worker unions.

Communities of Practice: Cooperative Developers Network.

International Bodies: The BCCA is a member of CMC, which is a member of the International Cooperative Alliance.

FUNCTIONS (HOW)

By providing technical support and capacity building: Active programs and partnerships are building capacity and supporting new and existing cooperatives in the region.

By implementing co-op friendly laws and policies: Some network participants have worked together to modernize BC's legislative framework, collectively forming a task force to create proposals for the new provincial law on cooperatives.

By representing and advocating: Cooperatives such as BCCA, UCI, BC Libraries Co-op, and Vancity are registered with BC's Office of the Registrar of Lobbyists.

By educating and researching: Beyond the universities involved, BC hosts programs supportive of ICA Principle 5 (e.g., Co-operate Now, Co-ops 101 Workshops, former Bologna Program). The Alliance prioritizes impact research.

By incubating and accelerating co-op growth: The network includes incubator organizations such as the UCI and Solid State. The BCCA also plans to host a cooperative incubator. Others, like Vancity, support co-op growth through funds and partnerships.

By convening and building relationships: Convening events and opportunities include workshops, Co-op Café, sectorial conferences, and study tours.

By financing: Vancity is the primary agent in facilitating funding for regional cooperatives, but provincial co-ops still face challenges in access to capital and could tap into the broader credit union sector.

CONTEXT VARIABLES

History and path dependence: Indigenous peoples' enduring ties to the land, intense immigration fostering a multicultural society, labor movements in resource-based industries. The long history of fishing co-ops, giving birth to the first CUs.

Embeddedness and social cohesion: Data shows some level of social cohesion through informal collaborations and acquaintances within the cooperative movement. However, despite the formalized Alliance, participants lack deep institutional embedding.

Co-op density: In 2021, BC had 700 co-ops, primarily concentrated in the Lower Mainland, West Kootenay, and Vancouver Island. Co-ops are prominent in credit unions and housing sectors and exhibit diverse presence across industries.

Macro culture: As of 2023, BC's culture is deeply tied to nature and the outdoors, reflecting environmental consciousness and a progressive outlook. Processes of immigration, colonization, and indigenous resistance shape its dynamic cultural landscape.

OUTCOMES

Sustainable Development: Sustainable economies as social justice: Provincial organizations and networks prioritize diversity, rural development, and indigenous reconciliation.

Social and economic resilience: Building capacity and strengthening co-op programs and partnerships is needed to enhance the network's resilience against crises through mutual support.

Creation and sustainability of more co-ops: In the context of British Columbia, prioritizing the creation and sustainability of new cooperatives is a clearly defined network objective and, therefore, anticipated as a desired outcome.

Intergenerational Infrastructure: A focus on infrastructure and rural economic development, as well as participation in modernizing the provincial law on cooperatives, implies the creation of enduring sector-wide infrastructure for future generations of cooperators.

IDENTIFYING GAPS AND DEFICIENCIES

Access to capital: Apart from Vancity funds flowing through multiple institutional grants and partnerships, most provincial cooperatives encounter challenges accessing alternative capital sources during the early stages of project development and sustaining existing organizations. The capital constraints in British Columbia are closely tied to the widespread lack of access to funds experienced by cooperatives. Some credit unions in the region refrain from supporting cooperative development beyond basic banking services, and the province also exhibits a scarcity of investment cooperatives (or cooperative funds). The few existing community investment cooperatives are small-scale or primarily associated with the renewable energy sector and do not sufficiently reach the broader cooperative ecosystem.

Education: At least four major educational institutions host departments, research centers, or scholars directly affiliated with the provincial cooperative network. In addition to the Cooperate Now boot camp, some courses at BCIT, and online and in-person programming provided by the International Centre for Cooperative Management (SMU), most other resources broadly focus on community economic development. The cooperative model has yet to be systematically incorporated into business, law, accounting, and other connected fields, and in this regard, there is a notable absence of relevant policies. As the network grows, the limited availability of education and research on cooperatives often results in a shortage of service providers across various fields who possess sufficient knowledge of the cooperative's unique enterprise model, governance system, and financial structure.

Co-op incubation or acceleration: New BC cooperatives lack the advantages of incubators and accelerators to expedite their development. While UCI and Solid State serve as incubators specifically for union cooperatives and worker cooperatives, there is a notable absence of a comprehensive cooperative incubator with adequate resources in the region. While the local associations provide resources to guide new co-ops, the province still needs to host a robust structure to provide curated resources to facilitate co-op formation and growth.

Coordination and communication: Except for a few essential programs and partnerships, most cooperatives in the province still operate in silos with minimal cross-sector cooperation. Even though the Alliance for Cooperative Development marks a fundamental step towards strengthening BC complex cooperative network, the group has yet to establish consistent coordination and communication channels. Since its inception, the group has held few meetings, and there has been scarce follow-up communication. Some member representatives have expressed skepticism about the future of the Alliance due to the lack of consistent engagement.

Public sector engagement: British Columbia's public sector is modernizing cooperative legislation and has allocated funds for cooperative development, primarily supporting industry-specific projects. However, a sustained, long-term commitment to this agenda is yet to be established. Resources for cooperative development, such as capacity building and infrastructure, remain limited and inconsistent. BC's involvement with the cooperative sector is considerably lacking compared to other cooperative hubs that have dedicated public offices focused on implementing policies to strengthen the regional cooperative movement.



FIVE PRINCIPLES FOR SUSTAINABLE AND RESILIENT NETWORKS

Using the Complex Cooperative Networks Framework to identify the building blocks of complex networks is essential for understanding their current state and pinpointing gaps on a case-by-case basis. Viewing the network through the lens of the framework is a valuable tool for identifying functions needing development, highlighting potential agents for increased involvement, and uncovering opportunities for strengthening the network. While some complex networks may defy general predictions due to their unique attributes, certain fundamental parameters remain consistent in most cases. Therefore, five Principles for Sustainable and Resilient Networks (PSRN) are used to evaluate the robustness and maturity of complex networks:

1. Institutionalization: Institutionalization happens when partner organizations achieve a stage of consistent flow of resources (e.g., financial, technological, personnel) and mutual support, ensuring that network connections endure, even if certain individuals who initially catalyzed the cooperation are no longer part of the equation.
Degrees: Informal, Emerging, Developing, Established.

2. Diversity: The greater the number and nature of coordinating agents that support the network and the more knots of articulation it possesses, the less vulnerable the whole network becomes to the failure of some of them during economic downturns (or other crises) and the larger its capacity to continuously branch out and access resources. Degrees: Minimal, Moderate, Diverse, Abundant.

3. Intergenerational infrastructure: Far-sighted approaches to functions including finance, policy, regulations, and partnerships to guarantee a lasting intergenerational impact. Complex cooperative networks should implement forward-thinking initiatives that establish the foundation for sustainable progress across generations, extending beyond current needs and relationships.
Degrees: Deficient, Fragile, Progressing, Concrete.

4. Self-reliance: Just as cooperatives are self-help organizations, complex networks in cooperative economies derive similar value from self-reliance. The most resilient and thriving networks demonstrate the highest degree of self-sufficiency, enabling them to produce and exchange the resources the ecosystem requires while diminishing their reliance on other incongruent ecosystems.
Degrees: Vulnerable, Dependent, Resourceful, Autonomous.

5. Embeddedness: Complex networks progress toward greater levels of integration within the wider social, economic, and environmental framework in which they function, generating interdependencies with their stakeholders and surrounding ecosystem. The tighter the knots and the thicker the linkages between them, the more mature and tenacious the network.
Degrees: Isolated, Reciprocal support, Core linkages, Positive co-dependency.

FIVE PRINCIPLES FOR SUSTAINABLE AND RESILIENT NETWORKS **in British Columbia's case**

1. Institutionalization: Data implies that British Columbia's complex network is emerging and still relies heavily on informal collaborations with inconsistent resource flow primarily based on one-off grants and partnerships. Nevertheless, the network has achieved a modest level of institutionalization. Critical programs sustain some resources and information flow within the network, but the existing relationships depend on individuals to maintain the connections. The network is vulnerable to changes in leadership and business plans.

2. Diversity: Vancity is a potent institutional anchor, providing funding and support to multiple provincial cooperatives through its strategic programs and partnerships. The second-tier cooperatives also behave as fundamental institutional anchors by convening and assisting cooperative development. With minimal diversity in the region, a few organizations serve as central hubs for connections, converging most of the linkages in the region. In this case, the network overburdens these hubs, resulting in minimal diversity. Removing these critical agents from the network would significantly weaken the system.

3. Inter-generational Infrastructure: There have been recent efforts in the province to modernize the law on cooperatives and active projects to create infrastructure and build capacity. However, these efforts are fragile and heavily focused on addressing immediate issues and the current needs of the cooperatives involved. Practitioners express concerns regarding the network's long-term viability, and there is a lack of evidence supporting lasting generational impact. There is no indication of considerations for asset lock - a tool that played a key role in building robust cooperative systems elsewhere (see Italy and Quebec below).

4. Self-reliance: While BC's network hosts a few self-reliant organizations, they are an exception, rather than a rule. Most cooperatives and partners are highly dependent on

external support and are at risk of disruption without it. The multi-year funding proposal the Alliance for Cooperative Development submitted to the provincial government highlighted the need for substantial resources to build capacity and infrastructure.

5. Embeddedness: Assessing the linkages in BC, there's a noticeable embeddedness among a few agents with consistent interactions and mutual support. Nelson's network is also well-embedded. However, this cohesive pattern does not extend to the entire network. Even within the Alliance for Cooperative Development, most participants lack pre-existing ties and maintain loose connections among themselves. Despite the creation of the Alliance marking a significant step toward greater integration in the province, cooperatives still operate in isolation and have yet to attain a sustainable level of inter-cooperation.

Lessons and recommendations

The assessment of the cooperative network in British Columbia reveals that the province does contain most of the building blocks of a complex network based on the conceptual framework used in this report. Therefore, it is possible to attest to the existence of the phenomenon in the region with active efforts to expand the network towards consolidating a cooperative economy. However, when evaluating the network in light of the five Principles for Sustainable and Resilient Network, it becomes evident that the current province-wide network is in its early stages, gradually evolving toward increased complexity. Given that active cooperative programs and partnerships in BC center around infrastructure, capacity building, community outreach, and education, the network is anticipated to undergo significant evolution in the coming years, driven by the influence of its early investments. If the Alliance succeeds in advancing its vision and sustaining its connections, the network could translate into a more robust and resilient system.

Network participants acknowledge the potential for fostering a cooperative economy and cultivating increased synergies among local organizations within the province to promote social, economic, and environmental sustainability. The network also comprehends the untapped potential of cooperatives in the local economy and has strategically pursued opportunities to engage the youth, indigenous people, immigrant communities and other groups in rural areas who can benefit from and contribute to strengthening the local cooperative scene.

Based on the data analysis, several key steps are essential to enhance network complexity towards a healthy cooperative economy based on resilience and sustainability:

1. The network continues to rely heavily on interpersonal connections and specific individuals. To ensure its long-term sustainability, a more robust institutional framework is essential. This requires a higher level of integration between cooperatives and partners, ensuring a consistent flow of resources. This collaborative synergy should be ingrained at an organizational level in a programmatic manner. Currently, the potential risk exists that if a few individuals disengage from the network, some bonds may not be sustained.
2. While Vancity assumes a pivotal role in ecosystem development, many of British Columbia's credit unions lack a comparable level of engagement. The robust credit union sector in BC holds untapped potential for resource mobilization. Other credit unions can rediscover their cooperative roots and uphold the fundamental principles and values that distinguish them. A cooperative economy calls for an increased presence of financial peers genuinely embodying their cooperative identity. These cooperatives can actively invest in and develop products tailored for other cooperatives in diverse sectors. This requires a more cohesive and intentional financial strategy to fund a system-wide infrastructure.
3. The provincial government should make a definitive and long-term commitment to the cooperative economy. While the allocated funds to the Alliance for Cooperative Development are a positive step, a sustained resource flow to co-op development will provide the necessary foundation for growth and stability within the sector. Co-creation of policies and institutions, such as cooperative funds and asset lock; education capacities and engagement of marginalized communities in the cooperative system, for example would contribute to the longevity of the cooperative economy and its resilience.

Annex - Complex Co-op Networks Framework Captions

WHAT: Network Infrastructure or "means of organization"

Informal Collaborations: absence of a formal contractual or institutional framework; peer exchange, informal sharing, advice.

Co-op to Co-op Business: formal business relationships; purchase, supply, finance, procurement.

Second-tier Co-op: Cooperative of cooperatives; shared services; enterprise development; consortia, federations and associations.

Co-op Group: Networked cooperatives operating as a single economic body; presence of a central holding entity with executive power.

Multi-stakeholder Networks: Partnerships; emerging networks; the commons; spectrum from "co-op only" to "beyond co-ops".

WHY: Purpose; needs and advantages of inter-cooperation

To leverage resources: Access a wider range of assets, including intellectual property, technology, information, financial, legal, and human resources, that would be costly or unavailable independently.

To reduce costs: Improve efficiency by negotiating bulk supply deals, sharing facilities, and outsourcing costly services like payroll or maintenance.

To align strategically: Collaborate to expand market reach, achieve shared goals, and develop advocacy strategies for supportive policies.

To provide public goods: Offer services that meet community needs, ensuring equitable access to essential social, health, and educational services.

To achieve economies of scale: Grow geographically, expand membership, foster innovation, and enhance value through networking, market access, and institutional transformation.

To spread awareness: Correct misconceptions about co-ops and highlight their benefits, promoting them as viable options for new enterprises and conversions.

WHO: Agents, enablers of complex networks

Co-ops (networks themselves): The driving force behind network formation and sustainability.

Co-op developers, consultants, and leaders: Experts guiding co-ops through all stages, fostering cooperation, capacity building, and continuous collaboration.

Regulators, policymakers: Government advocates who understand the co-op model and promote supportive policies and regulations.

Educational institutions: Universities and research centers focused on cooperative education, talent development, and research.

Social Economy Enterprises: Businesses prioritizing social impact and engaging all affected stakeholders.

Common Interest Groups and Civil Society Organizations: Collectives or movements advocating shared objectives through democratic and grassroots actions.

Communities of Practice: Co-op professionals regularly sharing best practices to advance network goals.

International Bodies: Organizations promoting cooperatives globally.

HOW: Functions that help co-ops achieve their purpose using their preferred collective infrastructure.

Providing technical support and building capacity: Offer support for co-op-specific practices (e.g., member engagement, leadership, voting) and business operations (e.g., market knowledge).

Implementing co-op-friendly laws and policies: Create a supportive legal framework.

Representing and advocating: Promote co-op principles and ensure their needs are addressed beyond individual enterprises.

Supporting education and research: Provide education that challenges profit-driven models, and conduct research to support co-op strategies and demonstrate their impact.

Incubating new co-ops and accelerating growth: Assist in co-op development, with incubators nurturing new co-ops and accelerators boosting growth for market-ready ones.

Convening and building relationships: Build and maintain relationships within the network, fostering a shared culture and mission.

Financing: Provide financial support to co-ops, even if finance isn't the primary function, by sharing surplus funds or access to capital with strategic partners.

Context Variables: Unique interplay between elements that distinguish one network from another

History and path dependence: Impact of historical events (e.g., colonization, wars, labor movements) on a region's current socio-economic environment.

Embeddedness and social cohesion: The degree of integration and cultural unity among cooperatives, partners and the community, indicating potential for long-term relationships.

Co-op density: The extent of cooperative activity in a region, measured by the number of co-ops, members, and employees across sectors.

Macro-culture: The community's cultural patterns (e.g., traditions, socio-political climate, economic policies) and their alignment with cooperative values.

Outcomes: Network's multi-faceted financial and non-financial outcomes beyond those generated by individual cooperatives.

Sustainable development: Improving living standards within planetary limits, ensuring the ecosystem's ability to support all species—framed as social justice.

Social and economic resilience: Strengthening the ability to recover from economic downturns and adapt to changes while minimizing harm to workers and communities.

Creation and sustainability of new co-ops: Expanding the number of cooperatives, increasing co-op density.

Intergenerational structure: Supporting future cooperative activities, fostering wealth transfer and well-being across generations.

Summary of Sources

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