



Global Value Chains Working Group

SCOPING Document

KNOWLEDGE-ACTION NETWORK ON SYSTEMS OF SUSTAINABLE CONSUMPTION AND PRODUCTION

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Summary and Overview

The scale and complexity of contemporary global value chains—and their socioeconomic and ecological implications—requires new conceptual approaches and methodological tools. Corporations - from small scale farmers to large multi-national enterprises – play a key role in addressing this challenge.

Over the past few decades multiple perspectives have been put forward to frame this responsibility. Notions such as the circular economy, the sharing economy and corporate social responsibility are all important socio-economic perspectives. Methodologically, an array of instruments has emerged including, but not limited to: eco-design, life cycle analysis, environmental and social accounting, sustainability reporting, sustainability certification or overarching sustainability management systems.

The academic debate has different disciplinary camps trying to understand the causalities underlying unsustainable supply and value chains. While rational choice-based scholars have focused on the importance of creating incentives and individual benefits, field level and more structurally focused debates have centered on power structures, overarching norms and wider societal pressures. As a result, we not only have a variety of terms and tools but also contesting academic explanations and perspectives to understand what has become a complex and 'wicked' problem.

We are a group of inter-disciplinary researchers and practitioners with an interest in and expertise of sustainable supply chains and transformative systemic change. We are working toward summarizing and developing new conceptual approaches and methodological tools in sustainable global value chains. Our work has practical utility, supporting the implementation of policies and practices toward more sustainable global value chains. We engage in transdisciplinary research, bridging the disciplines of social and natural sciences and engineering, and work closely with industrial, governmental and societal stakeholders to define research objectives and co-construct knowledge. Our approach is shown in Figure 1 (Bergendahl et al.,

2018).

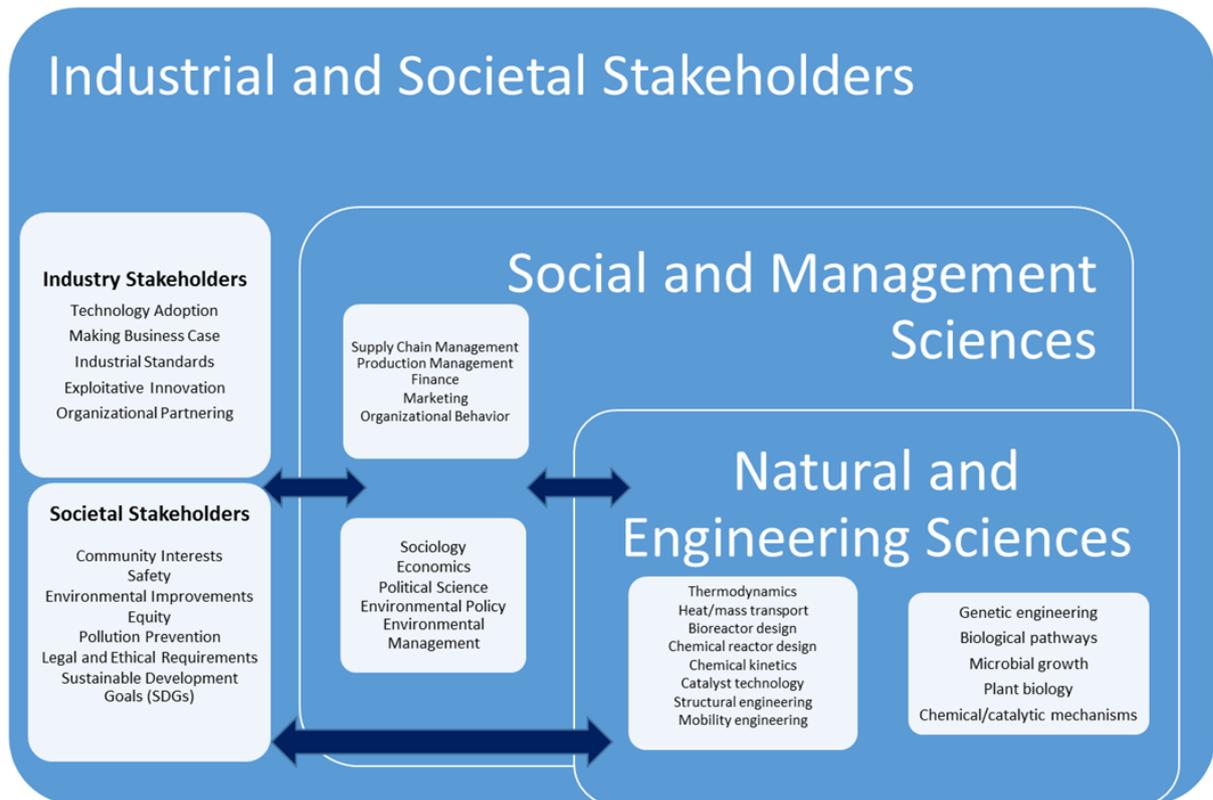


Figure one: Transdisciplinarity and sustainable value chains (source: Bergendahl et al., 2018)

Rationale & Objective

This group aims to develop an overarching research and action framework that helps guide the transition towards more sustainable business and their value chains.

The group will focus on:

- evidence-based research that analyses root-causes of current problems within emerging realities, so we can arrive at responsible and feasible courses of action.
- assist in continuously improving product, production, procurement, delivery and

consumption sustainability through novel innovations, social interventions, tools and methodologies.

- identify and support implementation of policies and practices for greatest beneficial and balanced impacts for customers, investors, workers, employees, host communities, and society.

Through a process of early engagement, we will work with practitioners to co-construct the Working Group's research design, from the overall aims/objectives to research questions, strategy and methods.

Background Literature and Issues Identification

Sustainable supply (value) chain (SSC) management and investigation has seen significant growth over the past two decades (Fahimnia, et al., 2015). Organizations face a variety of forces requiring them to address sustainability concerns. Forces have included regulatory, competitive, and community pressures for organizations to improve their environmental and social sustainability (Zhu et al., 2007; 2013). The greatest sustainability influences occur along the supply (value) chain since it is the influences of multiple organizations from extractor to end-consumers.

Expanding the scope from just one organization improving its own sustainability performance to include multiple organizations coordinating their sustainability efforts and driving wider transformation becomes a complex endeavor. Add to these issues various globalization concerns such as differences in culture, politics, and economic systems; and managing supply chain sustainability is exponentially more difficult (Acquier et al., 2017).

Motivations for companies to adopt sustainable supply chains varies greatly. Risk reduction, supply chain resiliency, building competitive advantage, having the license to operate, improving image and just meeting regulations are all reasons for adopting SSC initiatives (Hofmann et al, 2018; Sarkis and Dou, 2017).

In the foreground of recent SSC studies is a call for an enhanced understanding of

the global management of sustainability in supply chains from multiple levels of analysis, including global–local dimension, distance and context, auditing, transparency, and management (Sarkis, 2012; LeBaron et al., 2017). From a multi-level perspective, one can bring together observations from recent reviews of sustainable supply chains about future directions for research.

For example, at the level of the (focal) organization, we see calls for more research into:

- Transformation and engagement within organizations and across supply chains
The shift should go from supply chain practices to strategic dimensions of business and supply chain transformation (Beske and Suering, 2014). New models and rethinking supply chains are strategy-making challenges (Pagell and Wu, 2009).
- Internal organizational function adoption of sustainability and SSCM. A concern is how to get internal functions within organizations to integrate and adopt sustainability. Procurement, manufacturing, logistics, marketing and distribution, although well developed in the research literature, still exhibit limitations within organizations (Chen and Kitsis, 2017; Machion, et al., 2018). Internal organizational diffusion of ‘strong sustainability’ is a major concern and going beyond ‘greenwashing’ (Landrum, 2018).

At the level of focal organization’s supply chain, there are calls for greater understanding about:

- How supplier relationships evolve into collaborative partnerships is important including new incentives and sustainable supplier development initiatives (Wu, 2017).
- Expanding the transformation of the supply chain and embedding sustainability beyond the initial tier into multiple-tiers is a critical issue. Transparency, traceability,

and the adoption of sustainability standards and other governance mechanisms deep into the supply chain are important and open questions (Tachizawa, 2014; Dou et

al., 2017; Hofmann et al., 2018).

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Finally, at the systems level, where the widespread diffusion of innovations (broadly defined) can have a broader effect:

- Roles of downstream supply chains, civil society and cross-sector interactions A significant amount of research focuses on upstream supply chains. But also the role of consumption and downstream is important, especially concerning communications

(e.g., Tate et al., 2010). Civil society, hybrid (social entrepreneurship) organizations, and non-governmental organization involvement in a transdisciplinary environment requires development and investigation (Bergendahl et al., 2018; Tate and Bals, 2018).

-Standardization and corporate self-regulation requires more intensive evaluation (Montiel, et al., 2012). It is important to continue to evaluate their contents, impacts, limits, legitimacy and wider institutionalization

(e.g., Bennett, 2017; Vermeulen, 2015). Their role in transformations across the supply chain and social dimension is needed.

- Data, digital and technological issues are playing a much larger role in sustainable supply chains. Their influence on knowledge development, adoption, justification, transparency, processes, cooperation and relationship management, amongst many other issues, requires significant investigation (Jabbour, et al., 2017; Trentesaux, et al., 2016)

We also recognize calls for expanding the discourse around SSCs. For example:

- Certain issues have received greater attention in investigating sustainable supply chains, with a primary focus on environmental issues, and especially climate change and materials

usage management (e.g. Bazan et al., 2017; Genovese et al., 2017). Other environmental issues such as biodiversity and water concerns, have received less attention. In addition, social issues have been greatly underrepresented in the sustainable supply chain literature (Fahimnia, et al., 2015).

- Emerging economy perspectives are underrepresented. Going deep into the supply chain requires that eventually emerging economy nations will be reached. Management, theory, and diffusion of sustainable supply chain concepts locally and globally in these contexts is needed. The north-south divide and innovation exchange is needed (Silvestre, 2015a, b). Although some regions of the world are well represented in the literature, a significant percentage of developing nations is not represented.

- Literature and practice has moved away from the concept of a simple linear supply chain toward industrial supply networks (e.g. van Bommel, 2011; Roscoe et al., 2016) and closed-loop systems. Evolutionary insights from sustainable innovation systems with strategic insights from the sustainable/green supply chain management literature have been linked to study sustainable consumption and production systems (Dewick and Foster, 2018).

These are some of the major concerns and issues still developing in the sustainable supply chain literature. There are two important observations to make, first, there is significant complexity when addressing many research dimensions of the sustainability of global value chains; second, there are many gaps that require investigation from multiple perspectives and stakeholders. For these reasons, we have developed a series of concerns and initiatives to help address these many remaining and emerging concerns.

Conceptual Framework for Research Aim and Objectives

The primary aim of this working group is to explore the process of transformative change toward sustainable global value chains. The research has shown that much of the research has focused on static perspectives and snapshots of how supply chains are sustainably performing. Expanding this work into a transformative perspective is needed.

Three primary research objectives have been identified:

1. To identify the generative mechanisms and critical conditions of transformative change for corporate global value chains (CGVCs) at a multi-field level: the organization, supply chain level, and the systems level.
2. To understand how the three levels are intertwined, co-dependent and co-evolutionary.
3. To develop tools for industry and recommendations for policy makers and societal stakeholders to steer a pathway toward sustainable corporate global value chains.
4. To recognize and expedite the economic as well as other positive impact of sustainable value chains on all the stakeholders including business, their supply chains, and society at large

These four objectives are integrated as a process and a set of relationships in Figure 2.

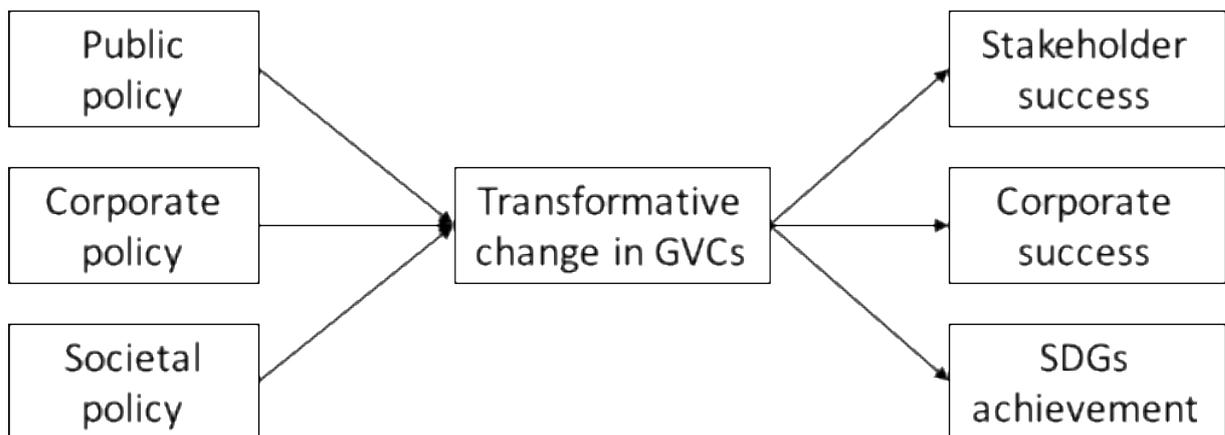


Figure 2: Conceptual Model Integrating Global Value Chains Working Group Objectives.

Research Questions

To respond to current research gaps in the literature, gain input from various practitioner groups and meet our research objectives, our working group will consider a number of research questions.

Some of these include:

- What characterizes sustainable Corporate Global Value Chains (CGVCs) versus Economic Global Value Chains (EGVCs)?¹
- What are the conditions facilitating and hindering transformative change towards sustainability in both CGVCs and EGVCs?
- How can organizations facilitate transformative change within their own organizational boundaries? What are the strategic challenges for organizations?
- How can organizations support transformative change with their first-tier suppliers/customers and beyond into multiple tiers?
- How can transformative change be supported by new institutions (i.e. understood as widely diffused practices, rules, technologies)? What is the role of institutional entrepreneurs and how do they mobilize the support of other actors beyond their supply chains to drive transformative change at the systems level?
- What role do new business models play in shaping wider systemic change? Would a shift toward a circular economy model (value co-creation) facilitate systemic change, and how could this shift be supported?
- How can governmental and societal actors support a transformation to more sustainable corporate global value chains?
- How do different actors combine to drive supply chain transformations?

¹ Among the top 100 largest economies are 31 countries and 69 corporations <https://blogs.worldbank.org/publicsphere/world-s-top-100-economies-31-countries-69-corporations>

In addition to the traditional perspective on explaining trade and economic development on public policy (economic global value chains), we should also investigate corporate procurement and sales policies of the Global 500. Currently the term GVC is used heterogeneously.

- How does green supply chain management (Green procurement, green manufacturing and green distribution Processes) lead to environmental, social as well as economic performance
- Critically, what are the implications of transformative change in corporate global value chains if scaled up and replicated? Do new corporate global value chain arrangements support sustainable, equitable growth? What are the trade-offs and paradoxes associated with transformative change?
- What tools need development? What models exist to support these transformations?
- How do technology, automation, digitalization, inequality and sustainability in global corporate value chains play an interacting role?
- How to map the relationships between different value chains, and the impacts of sustainable production/consumption practices within these actors.

Research Strategy

Our research takes a multi-field level approach, exploring the organizational, supply chain, and systems level. For example:

- Organizational level – exploring how organizations gain ‘deep institutionalization’ (Randles and Lasch, 2016) of sustainable supply chains within their own organizations i.e. across functions or product categories, both technical and commercial, hierarchical levels within the organization;
- Supply chain level – exploring how organizations stimulate innovation in supply chains towards sustainability, both with upstream suppliers and downstream customers; and
- System level – exploring how these changes *shape and are shaped by* the system wide field, accounting for path dependency/lock-in, and the role of actors/networks/institutions.

To understand better the challenges at each level, we will also study how the field levels interact (Boons and Wagner, 2009). Various theoretical lens could be applied in combination.

For example, we could combine sustainable supply chain management literature with:

- institutional theory, studying how changing practices at the organizational and supply chain level can be diffused more widely to facilitate institutional change at the system level (Lawrence *et al.*, 2002);
- innovation systems perspectives, investigating how radical changes at the supply chain level are related to lock-in and path dependency (Dewick and Foster, 2018);
- stakeholder management theory, exploring the effects of collaboration beyond traditional supply chain boundaries (Roscoe *et al.*, 2016) and the role of non-human (eco-system) actors;
- business model literature, to further understand how deep and shallow institutionalization within the organization (Randles and Laasch, 2016) can extend beyond organizational boundaries to first tier suppliers and customers.
- Theories of cultural change that are applicable will need to be identified and used to develop avenues for tools and models applicable for practitioners and policy makers.

Research Methods

We will use a mixed methods approach to study transformative change in global value chains.

For example:

- Comparative case study research of the generative mechanisms and critical conditions of transformative change in selected global supply chains that involve developed and developing economies, for example, food (fresh, frozen, ambient), textiles (low value, high value) and chemicals ('bulk' and specialized) and electronic consumer products. Map structures of supply chains; identify dominant/key/focal players and diffusion of sustainable practices both upstream and downstream; explore how focal actors

mobilize support and resources from wider allies at the systems level. Informed by qualitative and quantitative data collection.

- Comparative case study research of transformative sustainable supply chains that focus on marginalized sustainability outcomes such as other forms of natural capital and social capital.
- In-depth ethnographic/action research within focal organizations over an extended period of time to study the intra- and inter-organizational institutionalization of practices, rules, technologies contributing to sustainable global value chains. Informed by deep immersion in collaborating organizations.
- Quantitative research including assessing so-called “spill-overs” focusing on positive impacts (handprints)² .
- Analytical modeling tools utilizing Input/Output Analyses, Energy Analysis, Life Cycle Analysis, Optimization and Multiple Criteria Decision-Making Models.

Who Needs to Be Involved: Most Relevant Praxis and Actors

The working group will eventually need to expand (see Figure 1 for the transdisciplinarity requirement) and include a variety of actors to be involved in the research, but also be influenced by the research and practice.

Following will be invited as Network partners from all regions and all along the global value chain:

- Private sector actors including specific organizations and industry associations
- Governmental policy makers at local, national and regional levels
- Civil society and non-governmental organizations
- Markets and Consumers Academics and Scientists
- Socially Responsible Investors and Ethical Risk Insurers
- Stock Exchanges ³

² **Global Responsibility Initiative – International and Global Spillovers in SDG Implementation**

³ The JSE has adopted the FTSE ESG Ratings process to create the FTSE/JSE Responsible Investment Index Series, launched on 12 October 2015. This replaced the SRI Index that had been running from 2004.

- Think Tanks
- Business Sustainability Centers with procurement and supply chain initiatives and working groups that are used for original research and dissemination.

Other Potential Partners for dissemination of information

Regional Networks e.g. Asia-Pacific, EU, professional organizations, APICS; Council of Supply Chain Management Professionals (CSCMP) GIZ and BSR Global Networks the United Nations Sustainable Development Goals, the World Business Council on Sustainable Development, and the UN Global Compact , The United Nations Environmental Program and National, USAID.

Companies can use the tools and frameworks from this working group and develop specific processes and practices to improve their supply chain sustainability. Partners of these initiatives will require incorporating efforts into their business strategies and strategic planning. Beyond corporate sustainability, companies would need to work with suppliers to apply practices and tools. The most effective models and tools will need to be identified. Smaller companies may engage in the initiative through unions and sector associations and the Initiative may focus on specific sectors

Diffusion mechanisms may include:

- industry sponsored conferences and workshops for smaller organizations.
- Use of webinars and distance education mechanisms to initially raise awareness are practical dissemination devices.

Policy makers and civil society need to be involved in the Initiative and may require additional and specific dialogues, workshops or other formats.

A summary of these university placed sustainability centers can be found at: <https://nbs.net/sustainability-centres>.

Action research to help organizations, supply chains, and policy makers will also play an important role.

Expectations towards Working Group Outputs

- White papers, conferences and workshops deliveries
- Publications and shared learnings
- Tools, Frameworks, Implementation Processes
- Recommendations for integrated action for multiple stakeholders.

Above are dependent on each other and will evolve from more basic research to actual practical implementations.

Funding and Collaborative Opportunities

Initial ideas about funding opportunities, or affiliation with initiatives that are already funded:

There are a number of international projects and potential grant opportunities to study sustainability in supply chains. These funds may emerge from governmental, corporate, and philanthropic agencies.

Government funding

- European Union, People's Republic of China, UK, and Switzerland.
 - o identified as interested in topics related to global value chains and corporate roles therein.

Private funding

Potential groups to approach

- C&A Foundation
 - o group has been less forthcoming with GVC topics as explicitly part of their research funding. Although some collaborative NGO's such as ISEAL certification umbrella group may fund or support some efforts.

Corporate funding

relatively limited, although

- consortium like Walmart's Green Supply Group, IKEA's Green Cotton Initiative
 - o some professional organizations may fund some aspects of projects, but small budgets may be the norm to support research.
 - o If academic research aims at finding and implementing solutions to problems they have decided to address, budgets can become large

The working group members identified some of the following programs:

- A project "Enhancing supply chain stability, resilience and sustainability through improved sub-supplier management – chocolate and cotton apparel case studies", has been occurring through the Research Institute for Organic Agriculture (FiBL) and the ISVC. This proposal is funded for 4 years by the Swiss government as part of the National Research Plan 73 (Sustainable Economy). The project develops and tests new approaches for buyers to improve their impact on sub-suppliers' sustainability performance.
- Another potential ISVC-type project "Low cost country supplier development through voluntary sector sustainability initiatives" investigates suppliers' sustainability performance over time within national sectors and is linked to buyer action.
- Comparative studies on conventional, alternative and hybrid food governance is currently a project seeking funding. It focuses on case studies on the institutionalization of different labelling schemes in Europe and China.
- The UK Global Challenges Research Fund had a recent call for proposals on the topic of emerging economies and supply chains. Some members of the working group are part of a recently developed initial proposal.
- In HK, for textiles, HKRITA may fund research into sustainability in the textile industry. There might also be some interest in HK, and neighboring cities (i.e. Shenzhen), by linking issues of future, advanced manufacturing and sustainability.

- Some of our institutions can do a search for potential proposals from granting agencies. Institutional sponsored programs departments may be useful as resources to help identify international collaborative efforts for global sustainable value chain activities.
- There is also a great deal of interest in funding work that looks into the 'Belt and Road' initiative, in China, which while ostensibly about infrastructure, will include impacts on trade, supply chains, and sustainability.
- Some members of the group have a number of working papers and white papers that can be shared. A process for sharing working papers that might benefit from collaborations from working group members needs to be developed.

Ten-year time line of Actions/Outcomes

First 2 years – Collaborations formed. Resources identified. Initial research teams and agendas formed further with details.

First 4 years – Publications in peer reviewed outlets. Initial databases to be shared. Initial workshops on results from research studies.

First 6 years – Initial pilot studies. Tools that are applied and data gathering from implementations. Workshops and dissemination of some initial information.

First 8 years – Tools developed to be applied in real world settings. Teams evolve and mature to identify necessary educational tools. Books and papers with tools evolving.

First 10 years – Popular press books. Templates for easy application. Living websites as research tools are shared for public consumption. Consultants use tools to help make some transformations. Industry associations partner to educate members of their organizations.

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TEAM Members

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