

**Title: Food Chains and Funding: Value Chain Development and Roles for Governments**

**Paper Proposal for either the Food Chain Approach or Agribusiness Strategies streams**

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**David Sparling** is Associate Dean of Research and Graduate Studies in the College of Management and Economics at the University of Guelph. In 2006 and 2007 he was the Executive Director of the Institute of Agri-Food Policy Innovation, examining issues related to agriculture and food policy. David has also been president of a farming company, an agri-business insurance company and a biotechnology start-up. David is a Senior Associate at the University of Melbourne and has taught at the Australian Graduate School of Management in Sydney. His research interests are in agri-food supply chains, food policy particularly related to organizational and technical innovation. David has over 60 papers and technical reports, 150 academic and industry presentations and 140 media appearances related to agriculture and food. His research also included commercialization of new technologies and he has studied biotechnology and bioproduct innovation in Canada and Australia, looking at the development of knowledge chains in these industries.

**Glen Snoek** is a recent MSc graduate from the University of Guelph. His research was in food value chains, the roles of government funding and the factors affecting performance of the chains. He is now a farm policy analysis with the Canadian Federation of Agriculture. Glen has extensive industry experience working for input suppliers to Canadian farm businesses.

## **Food Chains and Funding: Value Chain Development and Roles for Governments**

**Problem Statement:** Agriculture and food companies are always searching for new product and market opportunities but many require resources that are beyond the capabilities of a single organization. A growing number of organizations have begun a transition toward business models of closer supplier/buyer cooperation to capture these opportunities. These ‘Value Chain Initiatives’ are intended to create—or enhance—value to participating firms within a value chain by working towards a common goal of providing customer value.

Governments and affiliated funding agencies have also taken an interest in supporting value chains as vehicles for improving the competitiveness of an important economic sector and as a means by which farmers can capture more value from their products.

However, value chains are complex undertakings and while government funding can help support these initiatives there are risks that simply the availability of the funding may encourage the creation of new value chain partnerships that are ultimately unsustainable without the funding. The process of creating, operating and improving a value chain is illustrated in Figure 1. This framework is built partially upon earlier work by Min et al’s (2005) who built a conceptual model of value chain collaboration which explored the requirements, operation and results of collaboration based on an industry survey.

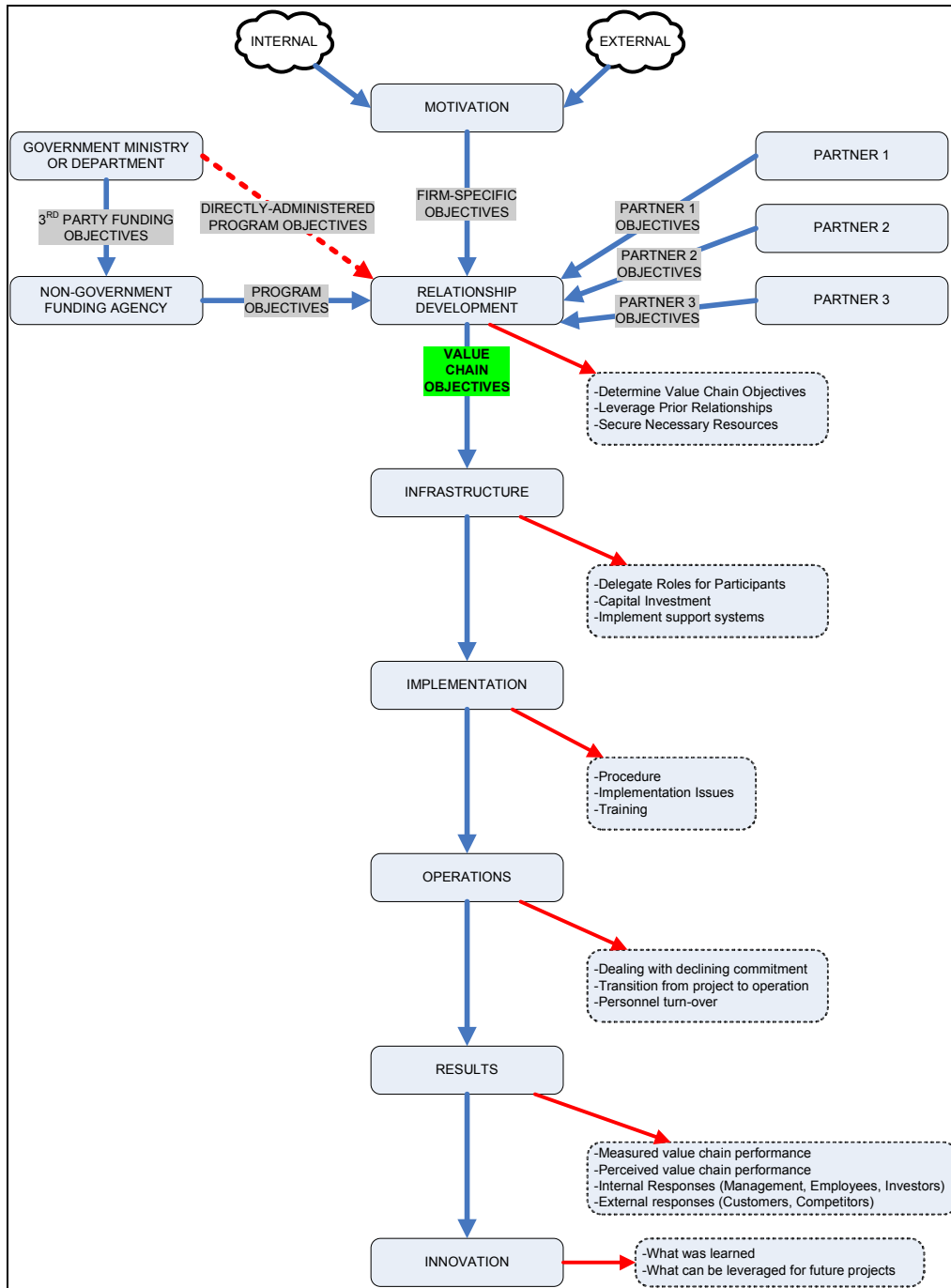
One of the areas lacking in agri-food chains is actually measuring the results of value chains. This is important for both industry and government seeking to understand and assess the impact of their efforts and investments. Aramyan *et al.* (2006) reviewed value chain performance measures and then combined this review with a summary of 12 different ‘agri-food supply chain aspects’ to develop a conceptual model of value chain management.

At each stage of value chain conceptualization and development, organizations may take different approaches depending on their objectives and the external influences. There are different opportunities for governments to influence development at the early stages in particular. There are also different risks depending on the industry and the stage of the value chain initiative. These risks can lead to value chain under-performance or failure and many may be identified in advance. This paper examines the challenges related to creating new value chains, the factors that play a role in value chain success or failure and the roles that governments can play in supporting value chains.

### **Study Objectives:**

- To understand the factors that contribute to the success or failure of new value chain initiatives
- To examine the types of performance measures used by both industry and government
- To examine the impact of government funding programs on agri-food chain initiatives.
- To examine the strategies used by funding agencies in supporting value chain initiatives.
- To assess the types of risks faced by those projects and to develop strategies to reduce those risks.

**Figure 1. Conceptual model of value chain development and the influencing factors**



**Procedures:** The study examined five case studies funded under a program specifically designed to promote new food value chain development, the Ontario Agricultural Adaptation Council's (AAC) Value Chain Initiative. Each of the projects had been underway for a period of

more than a year at the time of the initial contact. Some had been going on for several years. The period of time was adequate to determine whether the results of the initiative.

Phase 1 – Review of value chain funding submissions - Each value chain initiative submitted a full application package to AAC and worked closely with AAC staff to develop the application. These applications were reviewed to provide a full understanding of the motivation and plans of value chain participants

Phase 2 – Semi-structured interviews with value chain participants explored all elements of value chain development, perceptions by different partners and the roles that government agents played in the initiatives.

Phase 3 - Analysis of Results - Cases were analyzed individually and then a cross case analysis across all five cases was completed.

### **Results:**

The paper discusses the findings in detail. Cases were first examined individually, looking at all aspects of value chain formation from motivation to innovation. Cross-case analysis of all five cases explored the differences in value chain development, risks and challenges and in roles for governments. Appendix 1 summarizes some of the key findings with respect to the value chain initiatives, the motivation behind them, the roles for different partners and the roles for governments in the value chains.

### **Conclusions:**

Value chains vary widely on almost every dimension but the results of the study found several common factors that influenced value chain development and several risks that were not always identified in advance, but which can have serious ramifications for value chain success. The study also identified several roles for governments and impacts that may, or may not, be intentional. Governments can play several roles in stimulating and supporting new value chain initiatives but the roles can vary by chain and industry. Appendix 1 illustrates how participants in different value chains can have completely different perceptions of the roles that governments can or should play in supporting their efforts. Government support is generally viewed as a valuable contributor to value chain projects but the results indicate that it may not increase the likelihood of success for new agri-food chains.

### **References**

- Aramyan,L. et al. "Performance indicators in agri-food production chains." *Quantifying the agri-food supply chain*. Christien J. M. Ondersteijn, ed., pp. 46-64. Dordrecht, The Netherlands: Springer, 2006.
- Min,S. et al. Supply chain collaboration: what's happening? *International Journal of Logistics Management* 16[2], 237. 2005.

# Appendix 1. Cross-comparison between the five value chain case studies

	OVA Veal Value Chain	Mead Melomel Value Chain	Seabuckthorn Value Chain	Elk Value Chain	Organic Pet Food VC
<b>MOTIVATIONS</b>					
Political/Regulatory					
Supply Chain Factors					
Market Factors					
<b>RELATIONSHIP REQUIREMENTS</b>					
Market Access					
Capabilities					
Past Value Chain Experience					
Knowledge					
<b>OBJECTIVES</b>					
Enhance Sales					
Reduce Costs					
Mitigate Risk					
Increase Operational Capabilities/Innovation					
<b>INFRASTRUCTURE</b>					
Defined Organizational Structure					
Determine Performance Measures					
<b>IMPLEMENTATION</b>					
New Systems/Technologies					
Training					
New Procedures					
<b>OPERATIONS</b>					
Transition to Operational Phase					
Relationship Management					
Personnel					
Value Chain Project Maintenance					
<b>RESULTS / PERFORMANCE MEASUREMENT</b>					
Efficiency-based Metrics					
Flexibility-based Metrics					
Responsiveness Metrics					
Quality Metrics					
Project Implementation Metrics					
Collaboration Metrics					
<b>INNOVATION</b>					
Value Chain leveraged by chain members					
Value Chain led to additional projects					
Value chain project enhanced corporate learning					
<b>ROLE FOR GOVERNMENT</b>					
Motivational Role for Government					
Relationship Development Role for Government					
Objective-setting Role for Government					
Infrastructure Development Role for Government					
Role for Government during Implementation					
Operational Phase Role for Government					
Government influence on Results					
Innovation Role for Government					

LEGEND	
	Factor not identified in any value
	mentioned by one chain member
	Mentioned by two chain members
	Mentioned by three chain members
	Mentioned by all chain members

LEGEND			
	Factor not identified in any value chain project		Mentioned by three chain members
	Mentioned by one chain member		Mentioned by all chain members
	Mentioned by two chain members		