Network Weaving for Regional Development on the Tip of the Northern Peninsula

Project Report

July 2011

Prepared by
Amy Tucker, Department of Geography, Memorial University
Ryan Gibson, Department of Geography, Memorial University
Kelly Vodden, Department of Geography, Memorial University
June Holley, Network Weaver

Table of Contents

Acknowledgements

Introduction

The many challenges faced by rural communities in Newfoundland and Labrador are well documented, including the collapse of the northern Atlantic cod and resulting moratoria, high rates of unemployment, low incomes and a declining, ageing population (Ommer & Sinclair 1999; Ommer *et al.,* 2007). Rural Newfoundland and Labrador performs poorly relative to the province and Canada on most socio-economic indicators, yet highly on social capital indicators such as: engagement in child and elder care; sense of community; presence of social support networks; levels of charitable giving; and crime rates (Vodden, 2009a; Sorenson *et al.*, 2005; CSC 2004; Statistics Canada, 2004, 2005).

The concept of social capital has gained recognition as a significant contributor to social, ecological and economic well-being (Savitch & Kantor 2003; Wilson 1997). Putnam (1993, p. 167) defines social capital as "the features of social organization, such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions". Networks are made up of sets of actors and their relationships. Social capital is based on contacts and exchanges that occur as people make and maintain relationships that enable them to work together to achieve things they could not achieve or could only achieve with greater difficulty by themselves (Barbieri, 2003; Field, 2008). Voluntary associations are but one example of such relationships (Grootaert & Van Bastelaer, 2002).

A rapidly growing body of geographical literature exists on "networks of knowledgeable capitalism" at the regional scale, part of a body of regional economy studies that rely on network concepts (Hughes, 2007; Grabher 2006). New regionalist literature emphasizes the importance of 'relational assets' within systems comprised of networks of linked actors with high levels of trust, reciprocity and norms that nurture creativity and innovation (MacLeod, 2001; Cook & Morgan, 1998; Storper, 1997; Goldstein 2005). In these "learning regions" networks foster the capacity to experiment, innovate and adapt to changing circumstances (Asheim, 2007; Florida, 1995; Cooke, 2001).

The study of social capital offers ways to better understand the role of social attributes in development and adaptive capacity (Adger, 2003; Pelling & High, 2005). Evidence from collaborative initiatives in economic development, health care, and other social and more recently environmental issues increasingly suggest that efforts to strengthen local networks can result in improved local development outcomes (Manring, 2007; Holley, 2007, 2005a; Krebs & Holley, 2004a). Further investigation of this claim in varying contexts is needed. Dicken *et al.* (2001) state that analyses of network dynamics can illuminate causes and mechanisms of uneven development. Law (1992, p.380) adds that by studying how

"heterogeneous bits and pieces" organize themselves, including the institutional mechanisms used to initiate and manipulate or govern networks, insight is gained into how these actors shape power relationships and related development outcomes (Grabher, 2006). Network position can create competitive advantages for certain individuals or groups, for example, with better connected actors receiving better returns and particularly greater access to information (Burt, 2000).

In Canada, many small, rural communities have weak formal market and bureaucratic relations, but strong associative or communal ones (Reimer, 2005). Network interactions in rural areas are often influenced by tradition and rich in informal methods of information distribution, but limited in access to formal facilities and support services (Lindsay *et al.*, 2005). These rural characteristics are due, at least in part, to distance from the urban centres where services are concentrated. Geographers are engaged in an ongoing debate on the importance of spatial proximity in network interactions and outcomes. Also debated is the relative importance of strong ties and bonding social capital within the core of a network, and bridging ties that create diversity and bring new resources from the network's periphery (Krebs & Holley, 2004a; Woolcock, 2002; Dicken, 2007). Focusing on the role of networks in the development and resilience of rural areas, Vennesland (2004) and Holley (2005b) highlight the role of social capital generated through both horizontal and vertical networks, in the successes of rural enterprises. Vodden (2009b) suggests the importance of reaching out through collaborative, multi-level governance to bring external resources (including information, skills and ideas) to rural regions. By combining the resources of local and external actors rural communities can increase the effectiveness of their development efforts (RUPRI, 2006).

Local development research in the 1990s also (re)emphasized the importance of cooperation among neighbouring communities through regional governance arrangements (Annis & Gibson, 2006; Connelly *et al.*, 2006; Vodden, 2005). Amdam (2003) discusses the crucial role of regional networks in the transformation from government into governance but despite the importance of new forms of rural regional governance, research on this topic has been limited in rural Canada. This study helps address this gap by contributing a rural Newfoundland and Labrador perspective to the growing body of literature on the nature and role of networks in rural development and regional governance, while also contributing to network creation and local development in the Tip of the Northern Peninsula region.

Aim and Objectives

This research investigated if and how theories associated with social capital and social networks and their role in rural development apply in rural Newfoundland and Labrador, particularly the St. Anthony - Port au Choix Rural Secretariat Region. The

goal of the research was to explore the nature of development network(s) on the Peninsula, the contribution that network relationships make to local development and the role that network analysis and network weaving processes can have in enhancing development processes and outcomes. Development has been broadly defined in the project as improved social, economic and/or ecological well-being; however, particular focus has been placed on development efforts that address local priorities identified by community sustainability planning within the region – namely tourism development and linkages between tourism and other traditional natural resource sectors.

In accordance with these aims, the research has explored the following questions:

1. What is the nature and extent of development linkages and networks on the Great Northern Peninsula, including both local and external ties?

2. How have interactions within these networks contributed to local development initiatives and outcomes?

3. How can development networks and their contributions to local development be enhanced through network analysis and facilitation?

Related objectives of the project were:

- To identify the range of individuals and groups and linkages between these actors that contribute to community and regional development in the case study area(s), along with their position, resources and roles within their respective regional development networks;

- To examine the nature of the interactions that occur within and between local development actors (i.e., frequency, methods used, resources exchanged, with particular attention to information and knowledge flows);

- To assess the contributions of network interactions to recent local development initiatives and outcomes (2008-2010) and particular network features or processes that have contributed to positive outcomes;

- To identify gaps in case study region development networks and opportunities to improve or facilitate network relationships; and

- To assess the feasibility and short-term benefits of using Smart Network Analysis and Weaving as a tool for enhancing regional development networks and social capital.

Research Approach

This research employed a participatory, embedded case study, social network methodology. The study drew on network theory and utilized a social network analysis (SNA) approach (Wasserman & Faust, 1999; Scott, 1991). Burt (2000)

observes that SNA can contribute to an understanding of social capital and its network structure. Of particular relevance, SNA can also be used to explore if and how relational patterns affect the functioning of social and social-ecological systems (Wellman, 1988; Vodden, 2009a). Development networks were analyzed within the four sub-regions of the St. Anthony - Port au Choix Rural Secretariat Region: Roddickton area, Hawke's Bay-Port au Choix area, Straight of Belle Isle area, and Quirpon-Cook's Harbour area as well as within the Tip of the Northern Peninsula (St. Anthony - Port au Choix) region as a whole.

Stakeholders within the region, together with provincial government representatives and researchers, guided the research design and implementation. A small group of community and government representatives formed a project advisory/facilitation group that provided guidance throughout the duration of the project. Additional input was gathered through interviews with local and regional development stakeholders and a series of local workshops, described further below. These techniques together with a review of secondary documentation provided local and historical context, as well as in-depth insights into the research questions, and feedback on initial findings and on the Smart Network Analysis and Weaving process. Perhaps most importantly from a community-based research perspective, local stakeholders shaped the project focus. Through both the Project Facilitation Group and an initial regional workshop held in June 2010 the general research interest in development networks was narrowed to tourism and intersecting natural resources and economic development networks more specifically.

Organization of Report

This report is a summary of the work undertaken during the *Network Weaving for Regional Development on the Tip of the Northern Peninsula* project (2010-2011). The remainder of the report consists of four principal sections. The first section provides a descriptive context for the Tip of the Northern Peninsula region, sub-regions and the region's tourism sector. The second section illustrates the methods utilized in collecting information through both online surveys and in-person interviews. This section also describes the data analysis process. The third section presents the results from the network analysis. The results focus on tourism opportunities and challenges, social network characteristics, and network metrics. The final section of the report moves from data and results to discussion of the meaning, relevance, and importance of the results, including priorities for moving forward with developing networks to enhance development in the region.

In addition to this report, the project has created a series of related documents available on the project's website: http://networkweavinggnp.wordpress.com.

Documents on the project website that complement this report include:

- Guide to Using Network Weaving: Tips for Entering Survey Data Online and Using Smart Network Analyzer
- Network Weaving for Regional Development Interview Guide Questions
- Network Weaving for Regional Development Tourism and Natural Resource Surveys
- Tip of the Northern Peninsula Network Survey Report-Back Session Report
- Introduction to Social Media Workshop Report

Study Area

Figure 1. Study Area Location

The study was undertaken in the St Anthony – Port au Choix Rural Secretariat Region in the Northern Peninsula of Newfoundland. The region was chosen based on the richness of grassroots community and regional development initiatives and support from regional stakeholders.

The St Anthony – Port au Choix region includes 55 communities north of River of Ponds. The region represents a regional population of 13,140, a 12.6% decline from 2001 (Statistics Canada, 2006). The region's unemployment rate is 36.5%; nearly double the unemployment rate for the province of Newfoundland and Labrador (Rural Secretariat, 2010).

Source: Conway and Gibson, Department of Geography

The St Anthony – Port au Choix Rural Secretariat Region is composed of four sub-regions: Hawke's Bay – Port au Choix area, Quirpon-Cook's Harbour area, Roddickton area, and Straight of Belle Isle area. A brief description of each sub-region is provided below.

Hawke's Bay-Port au Choix Area

The Hawke's Bay - Port au Choix area (Eddies Cove West to River of Ponds) consists of the communities of Barr'd Harbour, Eddies Cove West, Hawke's Bay, Port Saunders, Port au Choix and River of Ponds. It is also within Regional Economic Development Board Zone 7, Red Ochre Regional Board Inc. The 2006 Census population for the area was 2,325, a decline of 11.6% from the 2001 population (Statistics Canada, 2006).
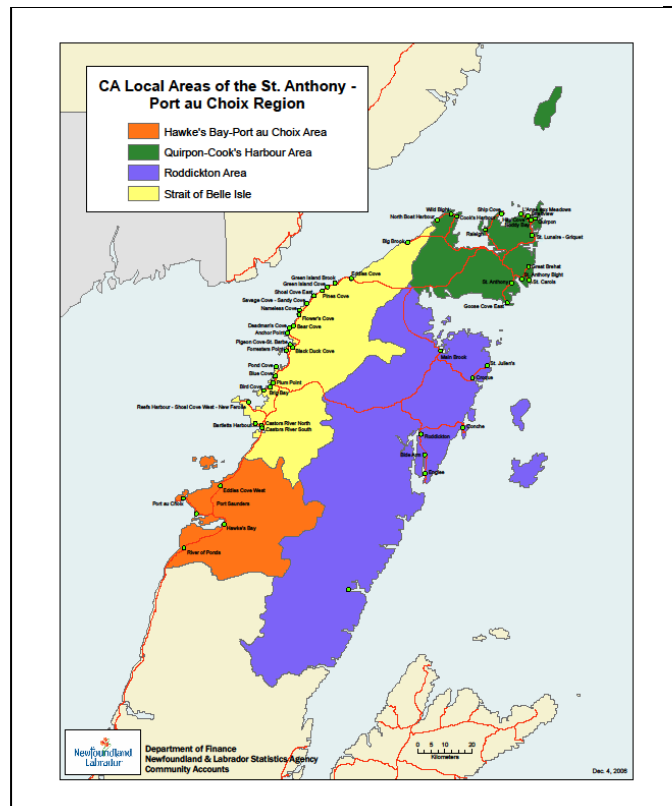
Resource-based industries, predominantly fishing, are the largest employment sectors. Port au Choix is known as the "fishing capital" of Western Newfoundland. Port Saunders, River of Ponds, Barr'd Harbour and Eddies Cove West also have strong fishing traditions that have continued into the modern fishery of today. Manufacturing is also an important industry in the area, which can be strongly attributed to the fish processing industry.

Figure 2. Sub-regions

Source: Department of Finance, Government of NL

Quirpon-Cook's Harbour Area

The Quirpon-Cook's Harbour area (Goose Cove East to North Boat Harbour) includes the communities of Cook's Harbour, Goose Cove East, Great Brehat, Hay Cove, L'Anse-aux-Meadows, Noddy Bay, Quirpon, Raleigh, Ship Cove, St. Anthony, St. Anthony Bight, St. Anthony East, St. Carols, St. Lunaire-Griquet, Straitsview, and Wild Bight. The 2006 Census population for the Quirpon-Cook's Harbour area was 4,720, a 12.3% decline from the 2001 population (Statistics Canada, 2006).

Healthcare and social services are important industries in this sub-region (Statistics Canada, 2006). A large proportion of these workers are employed in St. Anthony because it is the major service centre for much of the tip of the Northern Peninsula. As such, it has a large multi-service hospital, a long-term care facility and many nursing homes that are utilized by people in St. Anthony and the other surrounding communities. In addition, Service Canada and the provincial Human Resources, Labour and Employment offices are located in St. Anthony.

Resource-based industries also involve many workers in this sub-region. The fishery has traditionally been the economic driver of these communities and still plays a major role in their livelihoods, employing 12% of the sub-region's workforce in fishing and an additional 6% in fish processing (Statistics Canada, 2006).

Roddickton Area

The Roddickton area (Main Brook to Englee) includes the communities of Bide Arm, Conche, Croque, Englee, Great Harbour Deep, Main Brook, Roddickton, and St Julien's. The 2006 Census population for the Roddickton area was 2,350, a 17.4% decline from the 2001 population (Statistics Canada, 2006).

This sub-region is also highly dependent upon natural resource based industries, mainly fisheries and forestry. Most of these communities are dependent upon fishing as an economic driver, as they have been in the past. They are also dependent upon the manufacturing in local fish plants.

Roddickton was traditionally and is presently a forestry community, both through logging and processing. On August 21, 2009 the government announced it would back a multi-million dollar proposal to modernize a sawmill and establish a wood inventory yard and pelletizing facility in the community. The facility is meant to sustain approximately 300 direct and indirect jobs in the region and create a new industry in manufacturing wood pellets. Croque also depends upon both the fishery and forestry, as they maintain a limited fishery and operate a sawmill. In addition, Main Brook was traditionally dependent upon forestry; however, in recent years this has declined and been replaced with activities such as tourism.

Strait of Belle Isle Area

The Strait of Belle Isle area includes the communities of Castors River, Eddies Cove, and Big Rock. The 2006 Census population for the Strait of Belle Isle area was 3,745, a 10.6% decline from the 2001 population (Statistics Canada, 2006).

This sub-area is predominantly dependent upon resource based industries, mostly referring to the fishery. The economy of the Straits area has traditionally been based on the fishery and this has extended into today as many residents are employed as fish harvesters. In addition, the local shrimp plant in Anchor Point employs upwards of 150 people seasonally from within and outside the community.

Existing Tourism Operators, Attractions and Organizations

Operators

The tip of the Northern Peninsula can be considered Economic Zone 6 plus approximately half of the geographical area of Economic Zone 7 (excluding the area South from River of Ponds to Trout River). A recent report provided the number of tourism operators throughout both of these Economic Zones, as shown in Table 1. Operators that exist in the Gros Morne area are included in this table, thus it is inflated for the tip of the Northern Peninsula alone. However, it does provide insight into the type of operators present as there are multiple business owners who offer

each of these types of services in the region. These private sector enterprises play an important role in the tourism sector by providing necessary amenities for tourists, as well as providing employment in their communities.

Table 1. Tourism Operators in Economic Zones 6 and 7

Type of operator	Number of operators
Accommodations	80
Motels and Inns	19 (9 with capacity to host conferences)
B&Bs, cottages and housekeeping units	67
Coffee shops	10
Craft stores/shops	27
Boat tours	8
Outfitters (hunting and fishing)	16
Private RV Parks	13
Restaurants	42

Source: Red Ochre Regional Economic Development Corporation (2010)

Attractions

There is an abundance of tourism attractions in the region. Some of these have been developed by organizations and businesses, while others are intrinsic in the natural environment. Table 2 shows a list of some of the attractions in the region, many of which are focused on history, heritage, archaeology and the natural environment. Other attractions include scenery such as iceberg and whale viewing, as well as trails for hiking, snowshoeing, skiing and snowmobiling.

Table 2. Partial List of Attractions on the Tip of the Northern Peninsula

Attraction	Community
Deep Cove Winter Housing	Anchor Point
Ashton House	Bide Arm
Big Droke Interpretation Centre	Bird Cove
Casey House Artist's Retreat	Conche
French Shore Interpretation Centre	Conche
Flowers Island Lighthouse	Flower's Cove
Anglican "Seal Skin Boot" Church	Flower's Cove
Thromobolite	Flower's Cove
Torrent River Salmon Interpretation Centre	Hawke's Bay
L'Anse aux Meadows National Historic Site	L'Anse aux Meadows
Norstead Viking Village	L'Anse aux Meadows
Fishing Point Emporium and Interpretation Centre	L'Anse aux Meadows
Flowers Island Museum	Nameless Cove
Port au Choix National Historic Site	Port au Choix
Museum of Whales and Things	Port au Choix
Burnt Cape Ecological Reserve	Raleigh
Raleigh Historical Fishing Village	Raleigh

Green Moose Interpretation Centre	Roddickton
Underground Salmon Pool	Roddickton
Long's Braya Flower	Sandy Cove
Coles House	Savage Cove
Grenfell Historical Properties	St. Anthony
The Dark Tickle Company	St. Lunaire – Griquet
Granchain Exhibit	St. Lunaire – Griquet
St. Margaret's Bay Winter Housing	St. Margaret's Bay
Limestone Barrens	Areas throughout the region
Barnes' House*	Englee
Log Drive Interpretation Site *	St. Barbe
Appalachian Trail*	Areas throughout the region

* Tourist sites under construction
Source: Compiled by A. Tucker drawing from RED Ochre Regional Board Inc. (2010)

Organizations

There are also multiple tourism organizations in the region, which operate many of the attractions listed above. A partial list of these organizations is shown in Table 3.

Table 3. Partial List of Organizations Working in Tourism Sector in the Northern Peninsula

Organization	Community(ies)
Tourism Specific	
French Shore Historical Society	Conche, Croque, Grandois-St. Julien's, Main Brook
Northern Peninsula East Heritage Corridor	Conche, Croque, Bide Arm, Englee, Grandois-St. Julien's, Main Brook, Roddickton
Straits Regional Network	Anchor Point to Eddies Cove East
Viking Trail Tourism Association	Deer Lake to St. Anthony in Newfoundland, and L'Anse au Clair to Battle Harbour in Labrador
Eight Sites Group	Daniel's Harbour North (specific tourism sites)
Western Newfoundland Destination Marketing Organization	Port aux Basques to St. Anthony in Newfoundland, and Southern Labrador to Battle Harbour
Northern Tourism Partnership	Plum Point north to L'Anse aux Meadows and east to Englee
Northern Peninsula Heritage Network	Trout River North (specific tourism sites)
Heritage and History	
Bide Arm Heritage Committee	Bide Arm
Big Droke Cultures Foundation	Bird Cove
Englee Heritage Committee	Englee
Raleigh Historical Corporation Inc	Raleigh
Grenfell Historical Society	St. Anthony
Development	
St. Barbe Development Association	River of Ponds to St. Barbe
Straits Development Association	Anchor Point to Eddies Cove East
St. Anthony Basin Resources Inc.	St. Anthony
Red Ochre Regional Economic Development Board	Trout River to St. Barbe
Nordic Regional Economic Development Board	Western communities on the Northern Peninsula from Anchor Point North

White Bay Central Development Association	Eastern communities on the Northern Peninsula
Nortip Community Business Development Corporation	Tip of the Northern Peninsula (North of Trout River on the West, and North of Englee on the East)

Other	
Friends of Burnt Cape	Raleigh
Model Forest	Roddickton
Northern Peninsula Integrated Coastal Zone Management	Western communities on the Northern Peninsula from Trout River North
Northern Peninsula Business Network	Throughout the region
International Appalachian Trail Newfoundland and Labrador Chapter	Western coast of the Northern Peninsula

Source: Compiled by A. Tucker

This list includes organizations specifically focused on tourism as well as heritage and history organizations that operate tourist attractions. It also lists economic development organizations that play a key role in tourism by providing important resources and assistance to people operating tourism attractions. Also included are some other groups that play an important role in tourism development but may not be directly focused on tourism.
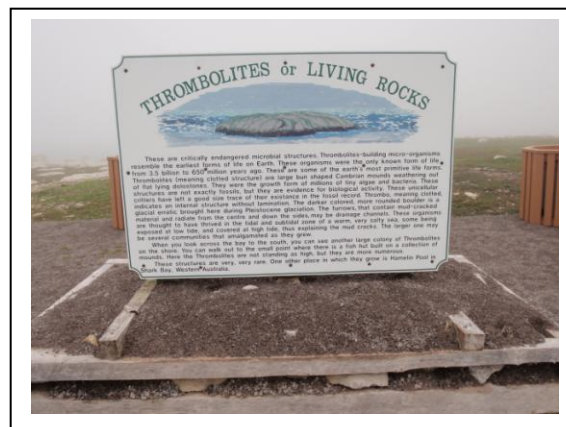
Thromobolite, Flower's Cove

Moose, St. Anthony area and French Shore Tapestry, Conche

Methods

The project utilized a multi-method approach to collect data on development networks on the Northern Peninsula, including surveys, key informant interviews, document review, facilitation group input and regional workshops. A brief description of each method is provided below. Surveys and key informant interviews were the two main methods used.

Surveys

A predominantly closed-ended survey was developed in consultation with network analysts and weavers June Holley and Ken Vance-Borland and with the Project Facilitation Group and discussions with a selection of tourism operators in the region. The survey was designed to ensure compatibility with Smart Network Analyzer (SNA) software and was administered from June to August 2010.

The survey included 3 types of questions:

1. Attribute questions: multiple choice questions that ranged from demographic questions (age, gender, location of residence) to questions about economic development interest areas. These answers were used to provide colors to the nodes in the network maps and to show patterns and connections (or lack of) among individuals with similar and differing attributes.

2. Open-ended questions: these included a question to identify all of the affiliations of individuals (i.e., organizations that they are part of) and one about their exact location of residence.

3. Network relationship questions: these three questions identified specific relationships among the participants and were represented on the network maps by the lines between individuals (called links or edges). Survey takers were given a list of names and asked to select individuals. The 3 network questions were:

   a. With whom have you worked during the last year on one or more projects related to tourism and/or economic development?

   b. With whom would you like to work in the next year on specific projects related to tourism and/or economic development?

   c. From whom do you get new ideas about tourism and/or economic development?

   The first question was used to generate a map of current working relationships, the second potential future relationships, and the third the innovation network.

The questions asked were about relationships between a diverse range of actors engaged in the tourism, natural resources sectors and in economic development more generally. Questions were designed to illustrate with whom these individuals and the organizations they represent interact, the nature of those interactions, and connections between these interactions and local development initiatives and outcomes, particularly within the past one to two years. This restricted time period enhanced recall and allowed for cross-checking with multiple sources, such as press releases and project proposals. The survey was modified slightly for contacts external to the region.

The key criterion for respondent selection was active participation in local development, such as active members of volunteer associations, municipal governments, and business leaders. In each case senior representatives were contacted (such as mayors, chairpersons, Executive Directors, business owners).

Project facilitation group members and other local key informants provided a list of contacts to be surveyed. A total of 267 people were invited to participate in the survey. The survey response rates from the sub-regional sub-groupings varied from 67% to 84%, with a mean response rate of 76% and 203 completed surveys (see Table 4).

Table 4. Response Rates by Region

Region	Response Rate
Overall	76%
External to Newfoundland and Labrador	77%
Outside Northern Peninsula but within Newfoundland and Labrador	83%
Goose Cove East to North Boat Harbour	79%
Main Brook to Englee	84%
Eddies Cove East to Castor River South	67%
Eddies Cove West to River of Ponds	67%

Source: Network Weaving Survey (2010)

The majority of individuals who participated in the survey were between the ages of 35 and 64 (see Figure 3). The dominance of these age cohorts is not surprising given the focus on active members of the region as discussed above and the demographic of community leaders. Slightly more males completed the survey than women; 105 men and 98 women. Again, this result is not surprising given the dominance of males in positions such as elected municipal councils and resource sector-related organizations in Newfoundland and Labrador.

The majority of respondents to the survey resided in one of the four sub-regions of the Northern Peninsula (see Figure 4). A total of 23 respondents from outside the

Northern Peninsula region participated in the survey, primarily from Newfoundland and Labrador.

Figure 3. Age of Survey Respondents
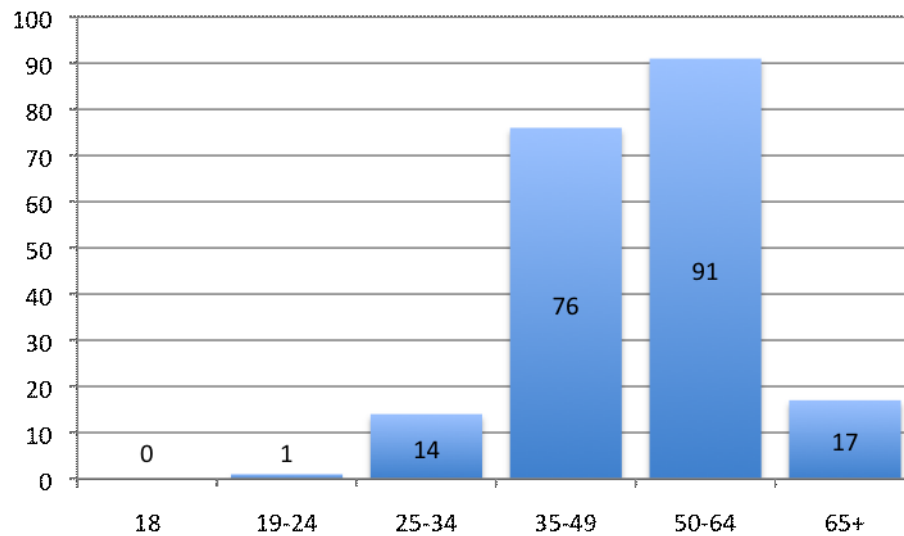
Source: Network Weaving Survey (2010)

Figure 4. Respondents by Residence
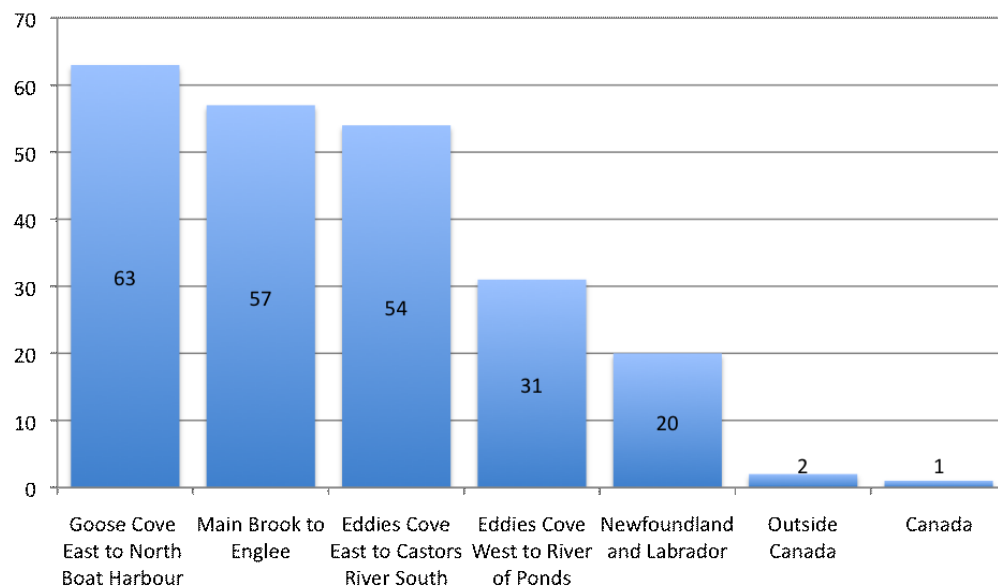
Source: Network Weaving Survey (2010)

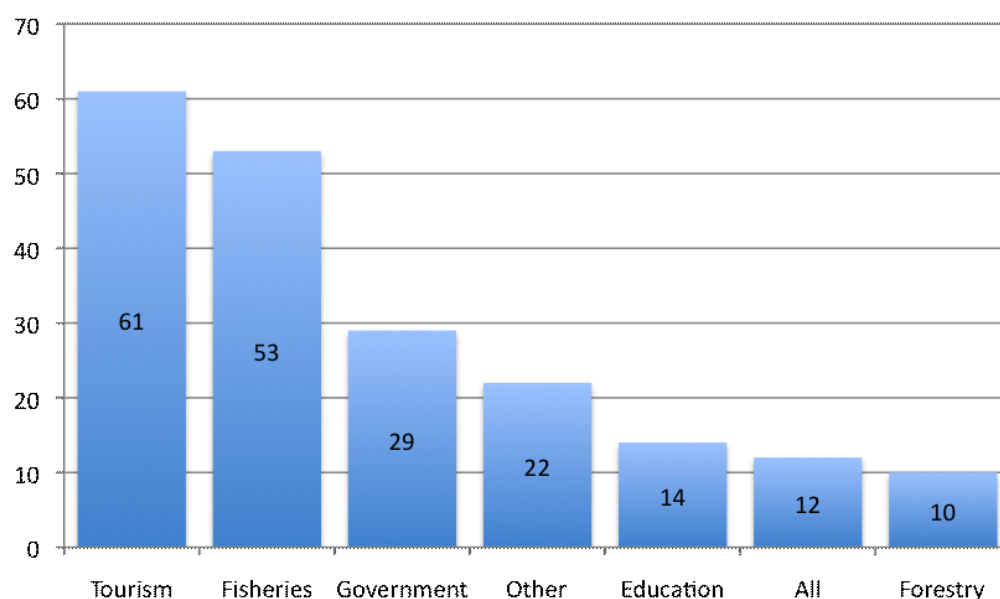The majority of survey respondents indicated they were affiliated with tourism or the fisheries (see Figure 5). The category of "Other" includes responses of non-listed affiliations or multiple responses.

Figure 5. Reported Sector Affiliation of Survey Respondents

Source: Network Weaving Survey (2010)

A copy of the survey instruments can be found on the project's website:
http://networkweavinggnp.wordpress.com.

Survey data was compiled and analyzed within Smart Network Analyzer, a software package specially designed to generate social network maps and metrics. Analyses included four network and individual metrics which were used to gain an understanding of network properties. Social network maps were used to graphically represent the complex interactions of local and regional actors.

Interviews

A total of 15 key informant interviews were conducted in August and September of 2011 to help provide further insights into the survey results and a more in-depth understanding of development networks within the region. Interviewees were leaders from the region, or that had worked extensively in the region, that came from various backgrounds, including economic development organizations, government departments, non-profit organizations, tourism businesses and municipalities. Interview respondents were selected based on survey results (e.g. individuals that are highly connected according to network metrics and/or demonstrated potential to play a lead role in future network weaving around emerging priority areas) and on the recommendations of the project facilitation group and other interview respondents. Individuals with some knowledge, interest and/or background in areas emerging as priorities for the region from the survey

results were targeted in particular to ensure that before discussing any new possible initiatives the research team was fully aware of the efforts that had already taken place in the region in these areas. The interviews also allowed for further exploration of emerging opportunities.

Respondents were asked to describe initiatives and networks of interest they had been involved in, including when and why the initiative, organization or network began, individuals and organizations involved and their respective roles, the nature of the collaboration between the organizations involved, resulting contributions to development and/or innovation in the Northern Peninsula region, and areas for future improvement. Where organizations or initiatives were no longer operating reasons for this change were explored.

Interview respondents were also asked to elaborate on their survey responses, including their interest in being involved in addressing the assets, challenges and opportunities they identified as most important, any barriers to addressing these issues, ways of overcoming barriers, and related past or current initiatives. Finally, they were asked about the role of networks and collaboration between individuals, organizations and/or communities in taking advantage of opportunities and overcoming the challenges faced in the region with respect to tourism and economic development.

Regional Engagement: Project Facilitation Group, Workshops and Follow-up Sessions

A project facilitation group, which included local and regional leaders from the municipal, tourism and heritage sectors as well as provincial development departments, was established. This group was convened numerous times throughout the research process and played various roles, including attending planning and training calls, helping to determine the scope and design of the project, providing feedback on survey and interview questions as well as potential respondents, and participating in the analysis of network maps to determine which should be presented to the larger public and where opportunities exist to enhance local networks. The group also acted as champions for the project and the network survey, urging people to complete it and to attend regional meetings and training sessions. The intent was also for members to continue to act as Network Weavers in the region, helping people within and among sub-regions get to know each other and pursue common goals.

Three regional workshops were held in conjunction with the project. These sessions facilitated two-way information sharing between the research team and regional

representatives and helped seed the development of a network of individuals interested in networks and network weaving within the region.

The first of these events - *Using Networks to Advance Regional Development on the Northern Peninsula: A Knowledge Sharing Event* - was held on Monday June 7th, 2010 at the Plum Point Motel. The session brought together 25 participants from across the region, including municipal leaders, provincial government officials, business people, researchers, economic development staff and other NGO staff. Staff were introduced to basic network concepts and shown examples of maps used by other communities. The purpose of this session was to get feedback on proposed areas of focus for the project (networks in fisheries, forestry, tourism and research and education), to begin to map out existing and potential networks, generate names for individuals that should be included in the survey and generate buy-in for the survey process. As a result of the session the research team decided to place particular emphasis on tourism networks in the region while also investigating connections between tourism and these others sectors. See: http://networkweavinggnp.files.wordpress.com/2010/08/knowledge-sharing-event-report_june-7-2010.pdf for a workshop report.

During the second workshop - *Tip of the Northern Peninsula Network Survey Report-Back Session*, held on October 4, 2010 at the Plum Point Motel, was an opportunity for participants to review and discuss the survey results and a series of network maps and to begin the process of regional collaborative work envisioned for the network weaving phase of the project. The results of survey were presented. Small groups were then asked to discuss where the sub-regions could be connected better and how they could extend their periphery so that they were in touch with innovative strategies from around the globe that could benefit the region. The group was then asked to discuss marketing as one of the key issues raised and how networks could assist in moving this forward. Participants were asked to discuss the following questions: Can networks help to better address marketing challenges? How? Who can help? Who needs to work together?
In the afternoon of October 4th, June Holley facilitated an initial network weaving session on how to use the information that had been collected and develop a plan of action. During this session people were asked to write down what they wanted to work on the most in the region with respect to tourism, and were then organized into four groups based on their answers:

  1) Communications and social media
  2) Marketing
  3) Product development
  4) Linking tourism with different sectors (e.g. fishery, forestry, research)

When people organized into small focus groups during the session, the product development group and the linkages group decided to work together and dissolved

into one group. Each group was given a worksheet to explore small steps that could be taken to try and move ahead with addressing these issues, the results of which are summarized below. Lead contacts were established for each of the three working groups.

For further details on the October 2010 project workshop see http://networkweavinggnp.files.wordpress.com/2010/08/october-4-northern-peninsula-network-survey-report.pdf.

Third, in response to the priority placed on communications within the research results and October workshop discussions, an *Introduction to Social Media Workshop* was held on Dec. 7, 2010 at the Flower's Cove municipal hall. For more information on this event see: http://networkweavinggnp.files.wordpress.com/2010/08/social-media-tools-report-final.pdf

Results

A Solid Foundation - Existing Tourism Networks

While both survey and interview results suggest there is room for improvement with respect to networking in the region there has also been significant past experience with networking in the tourism sector to build upon. Eight organizations that are specifically focused on tourism development in the region are highlighted below. Each of these play an important networking role in tourism development, although some are more established than others, and should be considered when developing any new tourism initiatives in the region. Connections and potential for collaboration between these groups are also topics that can be addressed through network weaving initiatives. Each one of these groups are profiled briefly below.

French Shore Historical Society

This is a volunteer based, non-profit organization founded in February 2000. Its mandate is to collect, research, interpret, educate and preserve the material and cultural heritage of its member communities: Conche, Croque, Grandois/St. Julien's and Main Brook. It consists of a Board of Directors, an advisory committee and staff. It has contributed to the region through economic and tourism development, as well as education and skills development. Its member communities have benefitted from sharing their knowledge and helping each other to market their tourism resources.

Northern Peninsula East Heritage Corridor

Northern Peninsula East Heritage Corridor is a good example of how a region can work together to develop and promote its tourism assets. The corridor is led by the Nordic Regional Economic Development Board, and includes the seven communities on the eastern side of the Northern Peninsula. It is all about information exchange and communication, with a particular focus on promoting and marketing tourism in the area. Tourism attractions in the region are included in the process. The organization is often cited as a good example of how communities and organizations can work together for the benefit of all.

> **Northern Peninsula East Heritage Corridor**
>
> The NPEHC is a successful initiative between the seven communities on the eastern side of the Northern Peninsula. It has served as a good example to the rest of the region of how communities can share their knowledge and operate in a way that benefits all communities involved. For example, every year they have a main event in one of the communities, but they organize it so that tourists will also visit the other communities in the area. Another group - Straits Regional Network - has recently started which follows their model.

Straits Regional Network

This is a brand new network that is also being led by the Nordic Regional Economic Development Board, which aims to follow the model of the Northern Peninsula East Heritage Corridor. It includes the 13 communities from Anchor Point to Eddies Cove East, although not all of these communities have been involved in meetings so far. This area has traditionally been fragmented and they are hoping that this initiative will help different communities and organizations to share knowledge and work together for the region as a whole. Because the initiative is in the beginning stages it has just begun this process.

Eight Sites Group

The eight sites group is led by both the Nordic and Red Ochre Regional Economic Development Boards and is composed of a network of local tourism sites, including the French Shore Interpretation Centre, Norstead Viking Village, Burn Cape Ecological Reserve, Green Moose Interpretation Centre, Big Droke Interpretation Centre, Nurse Myra Bennett House and the Torrent River Salmon Interpretation Centre. This group was developed to share insights and experiences and promote the sites as a package. They are a recently developed group that has met on a few occasions to start outlining fundamentals of what they want to work on and next steps forward.

Viking Trail Tourism Association

The Viking Trail Tourism Association was founded in 1988 to develop a collective marketing and tourism strategy for the region's growing number of small tourism-related enterprises along the Viking Trail. The Viking Trail is the largest themed highway in Newfoundland and Labrador, running from Deer Lake to the Labrador Straits. Its objective is to work in the spirit of cooperation and harmony to establish the tourism potential of the Viking Trail by engaging communities in common educational, social and economic goals. The association has dozens of members, including businesses, organizations and municipalities.

Northern Tourism Partnership

The Northern Tourism Partnership emerged out of an earlier (2006) small, informal network that called itself the Northern Travels Tourism Network. The mission of the Northern Tourism Partnership is to collaborate to increase the market share for its members through marketing, packaging, educational and research programs and to solve shared problems facing tourism development in the region from Plum Point north to L'Anse aux Meadows and east to Englee. It is a group of regional businesses, heritage sites and support agencies that have created a regional tourism development group to deal with multiple challenges facing the region, including the relatively low number of visitors travelling north of Gros Morne on the Peninsula. These tourism businesses and attractions are looking to create a group structure they can use to build their tourism industry to be competitive with the rest of the province and country. They are hoping to do this through creating a tourism cluster.

Northern Peninsula Heritage Network

The Northern Peninsula Heritage Network is a Heritage Cluster Pilot Project launched in 2010 and led by the RED Ochre Regional Board Inc. and the Community-University Research for Recovery Alliance (CURRA), with the support of the Nordic Economic Development Corporation, the Viking Trail Tourism Association, Parks Canada's Western Newfoundland & Labrador Field Unit, various municipalities and fifteen heritage organizations along the Great Northern Peninsula. It aims to enable participating heritage organizations to better position themselves to take advantage of tourist traffic throughout the region. These organizations hope to become more individually sustainable, while making regional contributions to the province's tourism revenue. They hope to create a successful heritage network that will create the capacity to attract and retain visitors during the tourism season. They will do this through a variety of activities, such as addressing the gaps in product and service offerings at each heritage/tourism site, marketing, and forming strategic partnerships.

<u>Western Destination Marketing Organization</u>

The Western DMO, formed in 2007, is an organization that was developed by the provincial government to increase economic development through tourism in Western Newfoundland from Port aux Basques to St. Anthony in NL and into Southern Labrador to Battle Harbour. In addition to marketing, the DMOs focus into the future will also be on tourism development and trying to assist groups in developing their products. They are then tasked to get the detail of the tourism products that are available in the region to the provincial government for marketing. The DMO can serve to play a key role in tourism development on the tip of the Northern Peninsula if it networks with other existing tourism and development organizations and businesses in the region.

Tourism Opportunities and Challenges

Tourism is growing in importance on the tip of the Northern Peninsula, as the last decade has seen it evolve into a viable economic venture for local entrepreneurs and organizations. On the entire Northern Peninsula the industry has gone from employing approximately 480 people in 1992 to 1,520 people in 2009 (including workers in service/retail sectors that benefit from tourist visits). In 1992 the industry was valued at $22,000,000 while in 2009 its value increased to $54,800,000 (Red Ochre Regional Economic Development Board, 2010). These figures are for the Northern Peninsula as a whole and therefore include the Gros Morne area, but they serves to illustrate that tourism is an emergent industry in the region. On the tip of the Northern Peninsula employment in retail, cleaning and food and beverage (all with a component of their incomes from tourism) account for 11 (Roddickton and area) to 15% of occupations and for 14% of occupations in the region overall (Statistics Canada, 2006 from Community Accounts).

> **"The Great Northern Peninsula (GNP) is home to some of the** most important natural and cultural heritage sites in Canada. From rare plants to the first European landings on the Western Hemisphere, the GNP is a compelling destination for **tourism."**
>
> Northern Tourism Partnership 2010

Survey respondents also recognized the increasing importance of tourism in their responses, as Figure 6 illustrates that over 40% respondents felt that tourism was going to be the region's most important industry in the future, surpassing fisheries.

Figure 6. Most Important Industry Today and in Ten Years
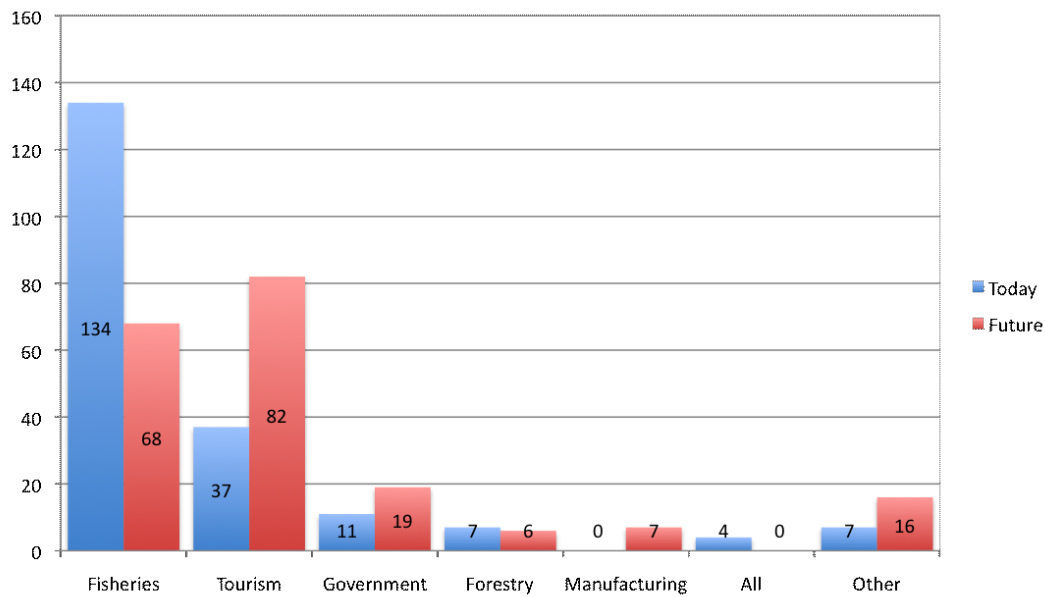
Source: Network Weaving Survey Data (2010)

Figure 7 illustrates that many respondents felt that tourism was the region's greatest asset for future development. There are many opportunities for tourism in the region, and the following section of this report will summarize the tourism priorities (including both opportunities and challenges to be addressed) that came out of the survey responses, the interviews and the network weaving session.

Figure 7. Greatest Asset for Future Development
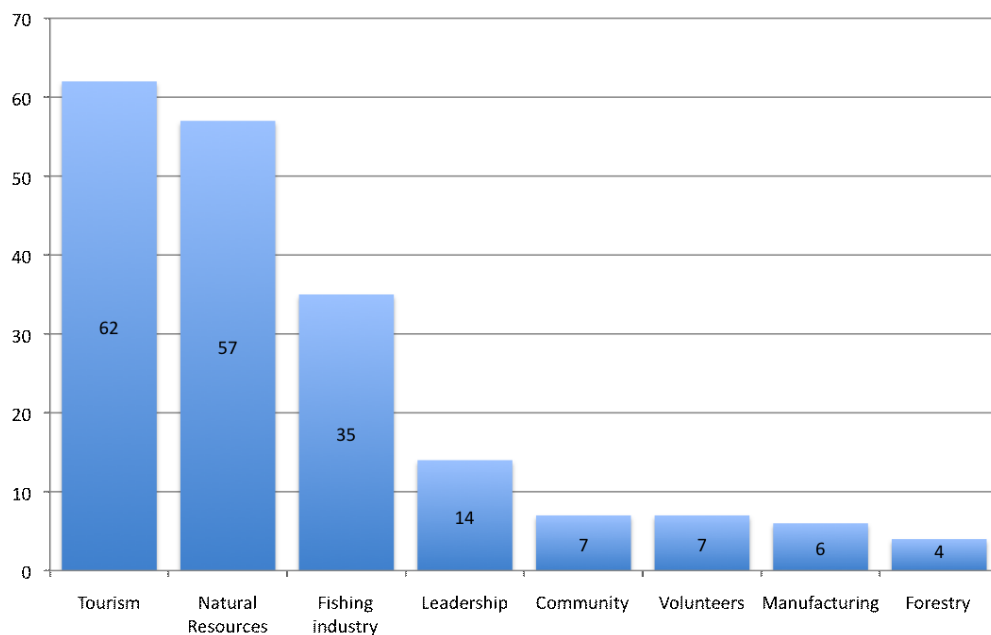
Source: Network Weaving Survey Data (2010)

Social Network Results

This research began under the assumption that networks are important, and that communication, collaboration and partnerships can help tourism move forward on the tip of the Northern Peninsula. Our assumption as researchers is also shared by the people living in the region, as they established that communication and collaboration are two very high priorities for their region through the surveys, interviews and network weaving sessions, discussed further below. Examining the social network maps and how people are connected to one another can shed light on opportunities for individuals and organizations to work together on shared visions. It is also useful to examine where parts of the network are lacking and how to build strength in these areas.

Whole Network

This network map in Figure 8 shows all of the people who took the survey, as well as other people they named because they have either:

- worked with them during the last year on one or more projects related to tourism and/or economic development;

- would like to work with them in the next year on these types of projects; or

- gotten new ideas from them about these types of projects

The squares (or nodes) are the people within the network (301 in total, including 203 respondents and 98 names added), while the lines show the relationships between them. Arrows on the lines represent the direction of the relationship: if the arrow points in one direction then the relationship was reported by one person, while if the arrow point in both directions then the relationship was reported by both people.

It is important to look at the configuration of the network when viewing and interpreting network maps. Those located at the core of the map have the most connections and are central to the network, while those at the periphery have fewer connections and often serve as resource people to those in the core. A network that functions well and fosters innovation (a "smart network") often has a dense core of overlapping clusters and a large periphery, as shown in Figure 9.

Figure 8. Whole Network
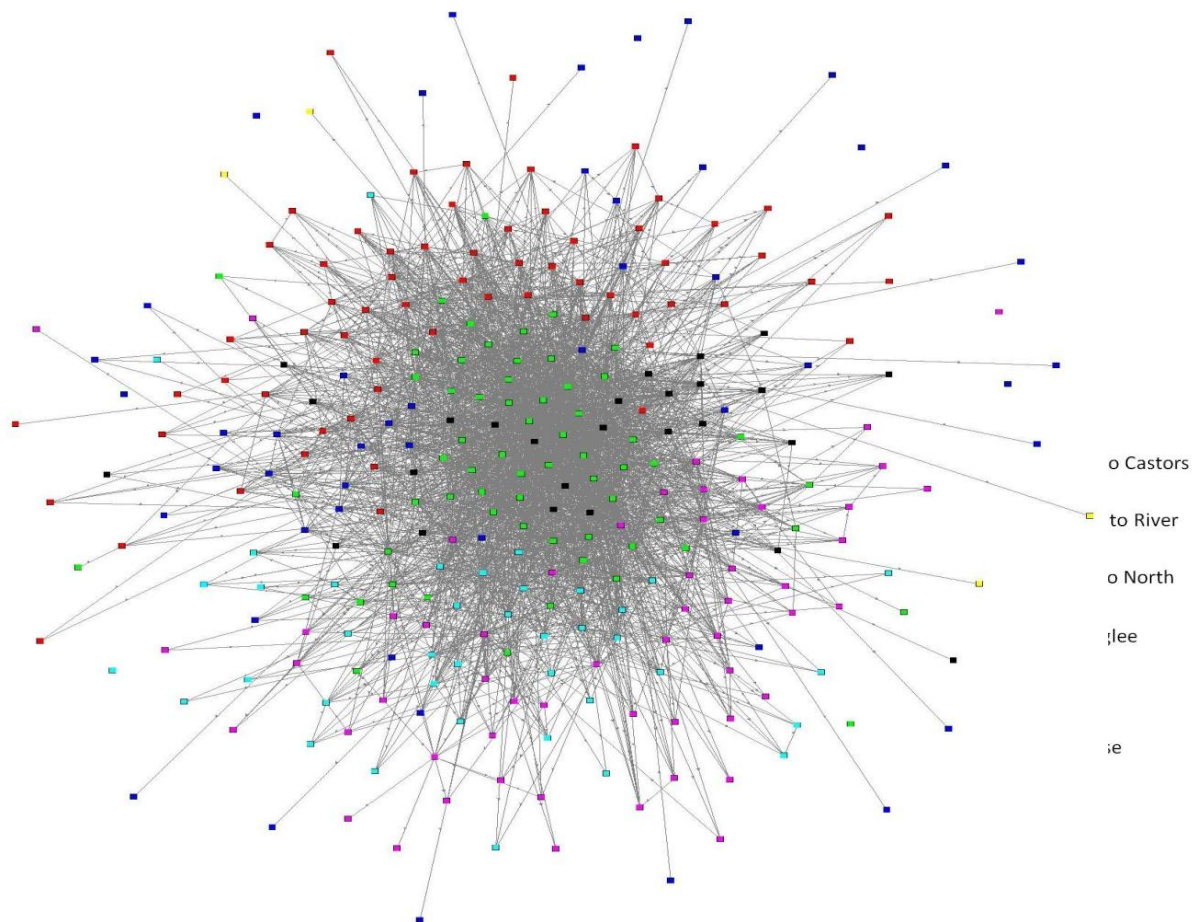
Source: Network Weaving Survey Data (2010)

The network map in Figure 8 (and others available on the project website) show that there is a cluster of regional people in the core of the network, with regional people being defined by the researchers as those who work or volunteer with organizations that serve the entire region. This illustrates the importance of these regional people within the network. Very few local individuals that do not play a leadership role in regional organizations are in the central core; most are located on the outer edges of the core.

Overall there is a very dense core, meaning that there are a lot of connections between people in the region. But most of the connections are among regional players or relationships between local individuals and regional individuals. The map shows a small periphery (compared with the "smart network" (Krebs and Holley 2004a) in Figure 9) with virtually no individuals from outside Newfoundland. A large periphery from outside the region is needed to bring innovative ideas and expertise into the region.

Figure 9. Smart Networks

Periphery 3-5 times
number in core

Core
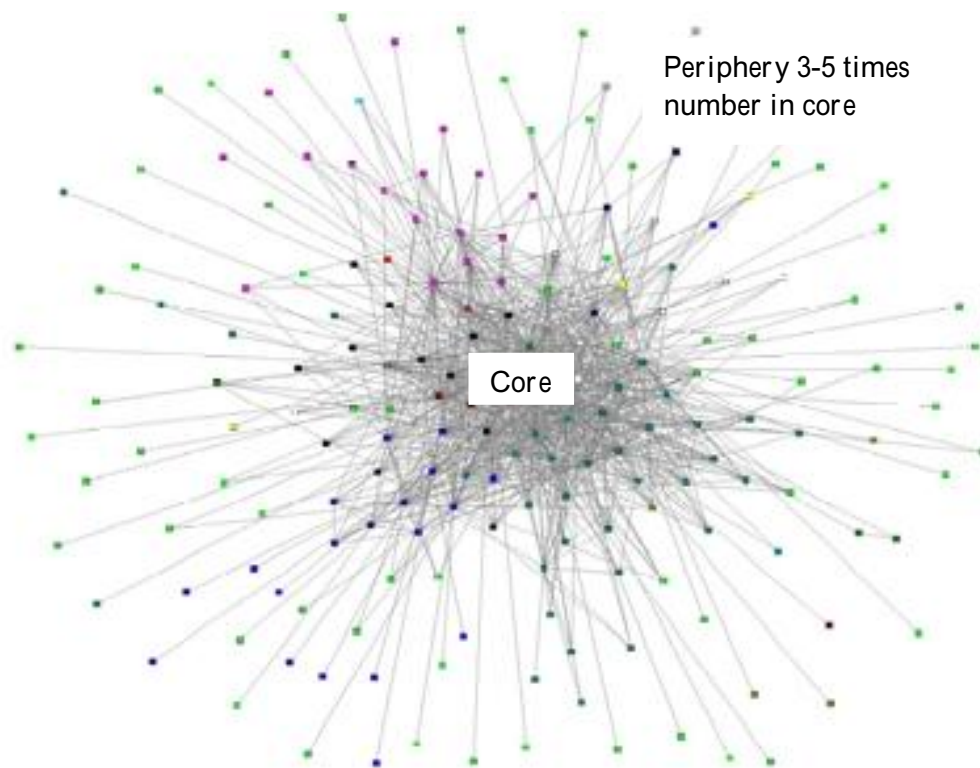
Source: Holley (2010)

Mapping Possibilities

Many maps can be generated from the survey data. The maps shown in this report are only a very small selection of what is possible, and the hope is that the social network software and the results of this project will become a tool that is used in the region into the future, with new maps of existing and potential connectios made according to the user's needs. It is also the hope that these users will become "network weavers", who are people who help the network be "smarter" by connecting people, helping them build trust, and encouraging them to work together across sub-regions and sectors (Holley 2011). Training has been incorporated into Facilitation Group meetings and workshops to facilitate this future use.

Network maps are particularly useful when names are included. The names are not included in this report for confidentiality reasons; however, identified network weavers who are able to use the names to build and strengthen the networks of the region will have access to these names (after signing a confidentiality agreement and agreeing to work as part of a team participating in project follow-up). The maps show that some people have many connections and are more central, while

others have fewer connections and are found on the periphery. Where people have few connections but have common interests, identified through the survey (mutual involvement in fishery or shared belief in a particular tourism opportunity for example), there may be opportunities to build networks between these individuals to advance common aims. With the help of maps such as these a network facilitator (or "network weaver") can help make these connections.

Tourism Network

An interesting example of the capabilities of network mapping is presented in Figure 10, which shows individuals who are affiliated with the tourism sector in the region, coloured by their sub-region of residence. The lines represent whether the people have worked together in the past on tourism and/or economic development projects. The map on the left shows only people involved in the tourism sector who have not been defined as "regional" people (leaders of groups that are regional in scope). It can easily be seen that the four sub-regions are quite disjointed, as there is not a great deal of project collaboration between individuals that do not play a lead role in regional groups. The map on the right shows the same network, but with the people who have been defined as "regional" added in. The sub-regions are still disjointed, but there are more people connecting the sub-regions than before.

Figure 10. Tourism Network without Regional People (left) and with Regional People (right)

Legend:
- ■ Goose Cove East to North Boat Harbour (black)
- ■ Main Brook to Englee (magenta)
- ■ Eddies Cove East to Castor River South (blue)
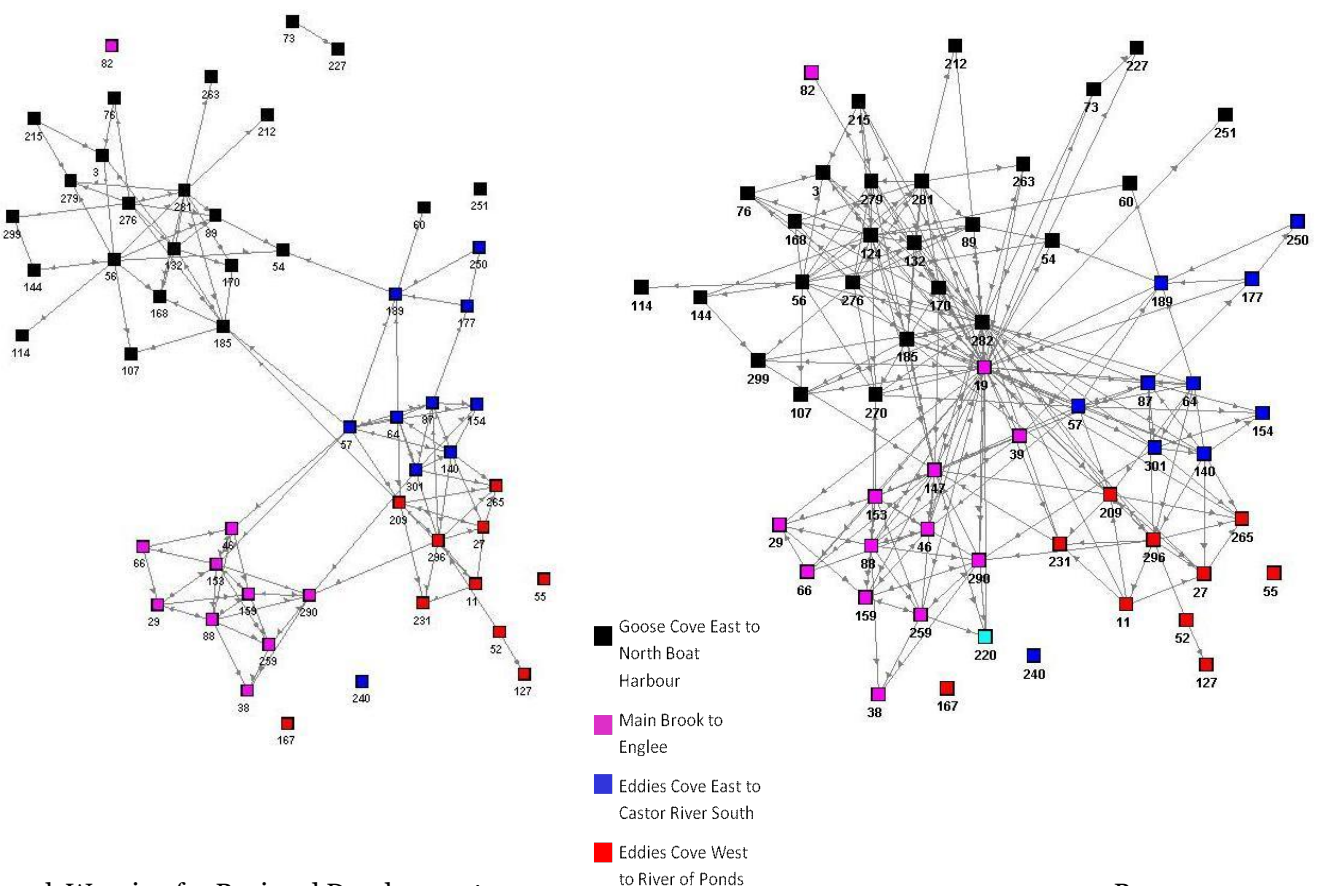- ■ Eddies Cove West to River of Ponds (red)

Figure 10 illustrates that important role that regional organizations play in connecting the players from various sub-regions within the region's tourism industry. The right side of the figure also shows the central role that persons 19 and 282, for example, play in collaboration and communication within the region's tourism network. Without them many connections between the sub-regions would disappear. These individuals can play a critical role in helping to spread information throughout the network, however reducing reliance on these individuals for making connections is also an important consideration for sustaining communication and collaboration within the region.

There are many more examples of network maps posted on the project's website: http://networkweavinggnp.wordpress.com (see the October 2010 report-back session report and presentations for example). These maps show respondents' priorities and connections from the survey with individuals' sector affiliation, location of their organization or their residence indicated using to allow for viewing patterns within the network. There are a multitude of additional maps that can be made using the social network analysis software, depending upon the needs of the community, organization or government department using it.

Network Metrics

Network metrics were also performed on the survey data, providing an array of quantitative information about the network. Four metrics were examined: awareness, connector, influence and integration. Each person in the network was given a network score for each of these metrics using the social network (Smart Network Analyser) software. These calculations are based on an individual's number of connections with others and their relative positions in the network. Each type of metric can also be examined by the type of network, meaning whether the people: a) have worked together in the past (past collaboration network), b) want to work together in the future (future collaboration network), or c) look to each other for ideas (innovation network).

These metrics were utilized to help uncover who the current and potential network weavers were within the network. The people with the top ten scores for each network metric were placed into a network metrics chart (see Tables 5 to 8). For this chart individual respondents' names have been replaced with number codes (identifier #s) for confidentiality reasons. A brief summary of results, opportunities and questions raised related to the four metrics is provided below, drawing from Krebs and Holley (2004b).

Awareness (2 Step Reach Out)

Awareness refers to how likely it is that people in the network are accessing information or relationships either directly or indirectly. It means that a person is

looking to others for partnering and innovation. It does not just look at direct contacts, but also the contacts of their contacts. Awareness metrics were examined based sed on the four different network types examined:

Worked with (past collaboration): Has worked with many people who also worked with many others

Innovation: Looks to many well-connected innovators; they are an innovation seeker

Future collaboration: Is eager to work with well connected others

Total: Likely to be aware of what is happening in the network

Table 5. Awareness metric results

Awareness							
Worked With		**Innovation**		**Future**		**Total**	
Identifier #	*Metric score*	*Identifier #*	*Metric score*	*Identifier #*	*Metric score*	*Identifier #*	*Metric score*
233	280	8	271	8	273	8	300
187	276	291	271	13	273	13	300
111	272	176	269	19	273	72	300
8	268	111	268	30	273	145	300
19	268	249	267	37	273	233	300
28	263	296	267	41	273	291	300
291	261	72	266	105	273	187	298
1	258	100	266	111	273	176	295
134	258	105	265	145	273	19	294
153	257	57	264	191	273	37	291
		134	264	225	273	225	291
				259	273	259	291
				290	273	290	291
Mean	118.46		68.78		117.4		164.22

Looking at the results in Table 5 one can see, for example, that person 8 is a key innovation seeker but that is also looking to collaborate with well connected others and therefore has the potential to help spread innovative ideas. He or she is among the six individuals most likely to be aware of what is happening in the network (with the highest overall Awareness scores) and is therefore an important source of network information. Looking at tables 6 and 7, person 8 is also a connector of people interested in innovation and new ideas and is named by/has influence on many individuals within the network. Innovation awareness scores can be used, for example, to work with idea seekers to enhance the effectiveness of their idea searches and/or to identify them as individuals that can help others search for new ideas. Because average awareness is much lower than the awareness of these very connected individuals there is an opportunity to build the network awareness of the whole.

Connector (Betweeness)

Looking at connectors reveals people who are between others and connect parts of the network that would otherwise not be connected. The connector metric can be examined from four different network perspectives in the following ways:

Worked with: Their collaboration links across organizations

Innovation: Their innovation links the network

Future: Their collaboration could link across organizations in future

Total: If they work with those they choose, they will connect the network

Table 6. Connector metric results

Connector							
Worked With		**Innovation**		**Future**		**Total**	
Identifier #	Metric score	Identifier #	Metric score	Identifier #	Metric score	Identifier #	Metric score
233	30023	8	21994	19	18307	19	65076
111	24618	19	20652	8	16151	8	50175
19	23538	111	19590	37	15604	111	49539
187	21981	176	13130	145	13734	37	34305
247	20339	291	10908	111	13312	105	32746
8	16377	72	9789	105	13072	109	28679
105	14117	37	7918	41	12912	233	26821
1	13683	105	7561	80	10074	67	23919
214	10367	92	7403	13	9792	165	23478
37	10362	296	7086	233	8476	1	21827
Mean	1365.93		733.36		868.23		2754.27

High Betweenness, or a high connector value (such as with persons 19, 8 and 111) can be evidence of hub-and-spoke pattern where an individual can act as a broker, connecting people to others or as a bottleneck if they do not make these connections or share information. People with high connector scores can help better connect the network as a whole by introducing individuals to one another (connecting the spokes) so that they can connect directly with one another rather than only through the hub.

Influence (2 Step Reach In)

This measures the extent to which the individual was named by others and thus is looked to by others in the network as a source of expertise, advice, or leadership. The connector metric can be examined from four different network perspectives in the following ways:

Worked with: Many people say they worked with them; they are collaboration hubs

Innovation: People look to them for innovation

Future: Many people say they want to work with them

Total: People want to work with them

Table 7. Influence metric results

Influence							
Worked With		**Innovation**		**Future**		**Total**	
Identifier #	*Metric score*	*Identifier #*	*Metric score*	*Identifier #*	*Metric score*	*Identifier #*	*Metric score*
8	171	233	123	247	141	33	184
255	171	19	122	33	140	187	184
233	170	194	122	19	139	8	183
105	169	247	120	187	139	19	183
37	168	255	120	214	138	163	183
187	168	214	119	255	138	255	183
41	167	282	117	8	137	37	182
176	167	111	115	37	137	105	182
19	166	187	115	147	137	111	182
194	164	165	111	194	137	233	182
		270	111	277	137		
Mean	101.2		57.57		105.52		151.15

Persons 291 and 176 are top idea seekers (Table 5) but they are not among the people that other look to most frequently for ideas (Table 7). Can these individuals be encouraged or supported to share their ideas? In contrast person 233 is the individual network members most often look to for ideas but this person is not identified as being among the individuals most actively seeking ideas. Many of the people that others look to for ideas may not be aware they are playing this role and could be supported to search for ideas they can share with others.

Integration

This measures the extent to which a person is in the "thick of things". A high integration score indicates that someone is the center of communication and action. The integration metric can be examined from four different network perspectives in the following ways:

Worked with: Well positioned for collaboration

Innovation: In the middle of innovation

Future: Well-positioned for future collaboration

Total: Well-positioned for future leadership

Table 8. Integration metric results

Integration							
Worked With		**Innovation**		**Future**		**Total**	
Identifier #	*Metric score*	*Identifier #*	*Metric score*	*Identifier #*	*Metric score*	*Identifier #*	*Metric score*
233	40087	8	23227	8	21533	233	36563
187	32434	111	18466	19	21365	19	29826
111	28156	19	16032	145	21061	8	28955
19	28091	176	13887	37	20788	37	26046
247	21386	291	11227	41	18331	165	24149
8	21198	72	10467	105	18265	145	24131
105	18105	105	8389	111	16936	41	22652
1	17929	296	6047	13	16033	105	22323
165	17574	37	5922	233	14588	1	21550
214	13837	147	5747	80	13167	111	20780
Mean	3259.95		1241.16		2310.98		4177.53

Once again we see here that some individuals have very high integration scores within the Northern Peninsula development network relative to the mean integration score for the network as a whole. These individuals are likely to get information about opportunities, for example, quickly and accurately whereas others with lower integration values may only receive information more slowly and second or third hand from others. Network Facilitators can help enhance communication within the network by building new bridges and connections.

There were some interesting findings looking at all four metric tables as well. For example, person number 111 scored high in innovation awareness, connection, influence and integration. This means that they are always looking for ideas, while they are also looked to often for ideas, which is a good indicator that this person could bring new ideas into the region and share them with others. It is also interesting that this person was not in a recognized leadership position, but was staff in an area office. This is an example of "hidden leadership" that can be found in most regions. By acknowledging this person's important role in the region and providing her more support and opportunities for leadership, she could become important in helping the region become more innovative and building further collaboration.

Priorities for Moving Forward

Based on the results from the network weaving survey, key informant interviews and regional workshops a series of ten priorities for future tourism-related network development emerged.

The surveys gave us a wealth of knowledge about what people would like to work on in the region, with seven priorities emerging. Each of these priorities was also supported through the interviews. These seven priorities were:

1. Communication about what individuals and organizations are doing and what they have in common (helping to foster collaboration and development)
2. Tourism marketing
3. Tourism based on history and heritage
4. Tourism based on the fishing industry
5. Tourism based on marine education
6. Tourism based on archaeology
7. Tourism based on winter recreation

Three additional priorities came out of the interviews that relate to the seven priorities outlined above:

8. Tourism packaging
9. Product development
10. Experiential tourism and tourism based on traditional activities and skills

Each of these ten priorities emerging from the research is summarized below.

1.   Communication and collaboration

A major challenge to tourism development evident through all data sources is fragmentation between different organizations, communities and different government departments, as well as a lack of regional thinking on behalf of these groups. Different communities and organizations often compete for funding and resources; whereas it could be an option for them to partner and collaborate in some of these instances. This arrangement would be beneficial for everyone involved and it could lead to better funding and support. There has been a recent shift in thinking that has led organizations and communities to begin partnering more in certain sub-regions (as evident from the description of existing tourism networks above); however, this could be translated to the tip of the Northern Peninsula as a whole. There is also a related concern about short term thinking on

behalf of both operators and government, where projects are funded without an overall vision for their future operations or how that project can benefit the region as a whole.

Within the survey, respondents were asked what the first area of focus should be when cultivating regional collaboration to address these concerns (e.g. encouraging people to work together). To this question, 80 people (41% of respondents to this question) answered that understanding what individuals and organizations have in common within the region (e.g. shared assets, challenges or goals) was the way forward. Related to this, an additional 57 (29%) of people answered that communicating their efforts so they know what one another is doing should be the first area of focus; totaling 70% who felt that more communication and information sharing was needed to foster greater regional collaboration (Figure 11).

Figure 11. How Regional Collaboration Can be Cultivated
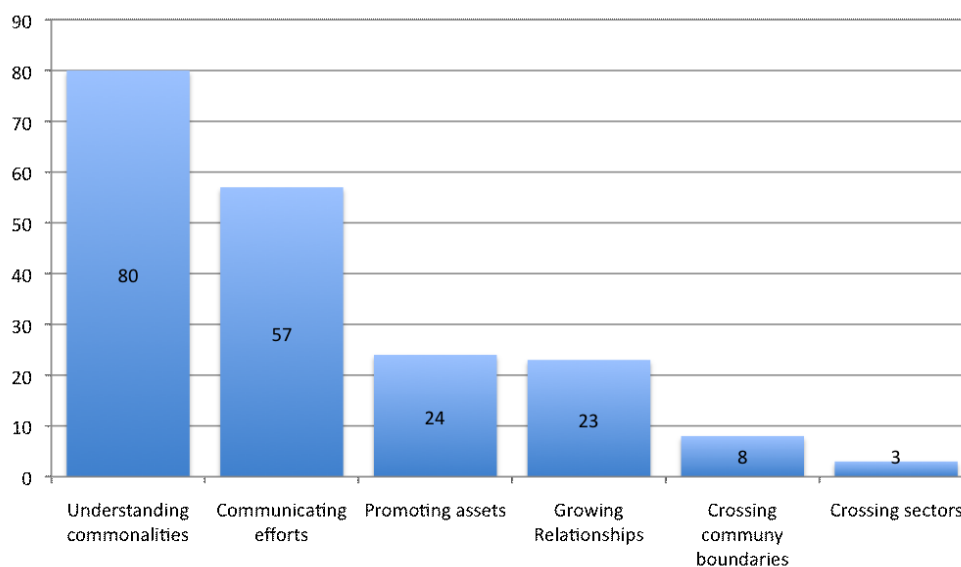
Source: Network Weaving Survey Data (2010)

In addition, respondents were asked what activities they would be most interested in doing as individuals to support tourism development in the region. The most respondents, 42, responded that they would like to join with a group of others to help develop tourism opportunities (Figure 12).

These responses indicate that many people see that there are benefits of communicating, taking advantage of commonalities and partnering with others. Thus these concepts have come out as a priority in this research.

Figure 12. How Respondents Would Like to Support Tourism Development
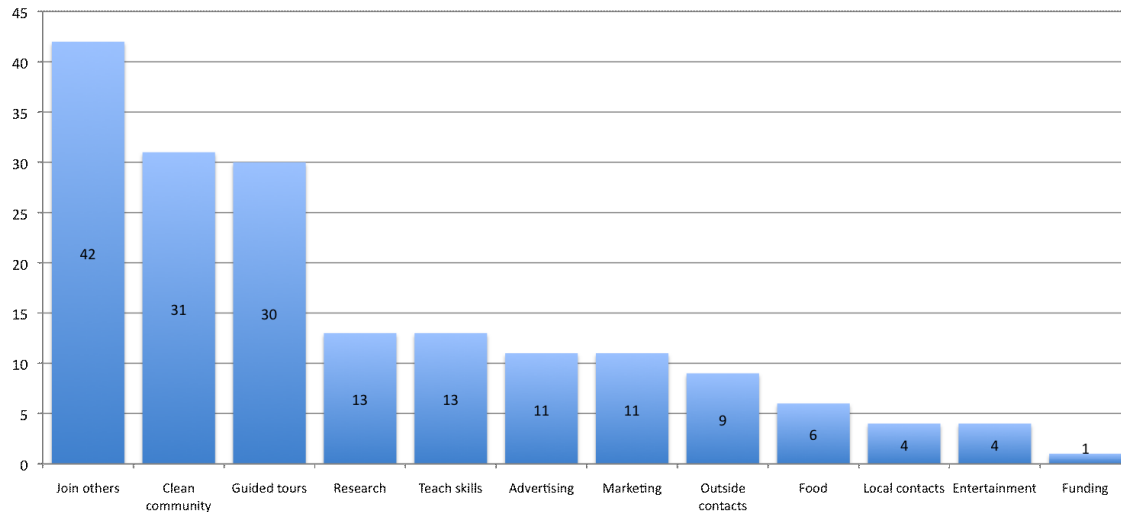
*Source: Network Weaving Survey Data (2010)*

All of the people interviewed also recognized and commented on the importance of communication, collaboration, partnerships and networks. Some of them provided examples of ways in which these strategies have helped them further their own tourism organization or business (such as the Northern Peninsula East Heritage Corridor profiled above). A trend in the region is that organizations and businesses are looking at partnering because they know it is a good strategy for moving forward their own initiatives and the region as a whole. Many are involved in sharing ideas, advice, expertise and resources. However, this is a new trend in some areas and it cannot be assumed that this way of approaching tourism is common in the entire region. As more people see the success of current organizations and businesses that network with others, this trend will keep growing into the future.

Finally, the Communication and Social Media group at the October 2010 report-back and network weaving session discussed the utility of existing communication tools such as the local newspaper, radio stations, and local groups such as the Great Northern Peninsula Forest Network to help address these identified communications needs. They discussed the need for a regional webpage that could possibly be completed by Municipalities NL, as well as the need for a regional trail map and the possibility of a GPS tour of the Northern Peninsula. They suggested utilizing students from the College of the North Atlantic GIS program to do research for their own projects that could be used for future tourism projects such as trails maps. They explored small steps to try and move ahead on communication, such as having a small group of people assess their needs and assets. They also suggested providing links on each other's websites and providing materials for other's websites. They took this one step further to suggest that everyone could have their information on one website. The use of social media was also discussed and the

need for training on how social media can be used for communications but also marketing purposes. The group expressed the need for high speed internet in all communities before a lot of communication work can be done.

At the end of the workshop a short survey was given to 19 people in attendance. Participants were asked what the top priority for future action was, and as Figure 13 shows, communication was a top priority, followed by product development, marketing and tourism based on marine education.

Figure 13. Priorities for Future Action from the Network Weaving Session
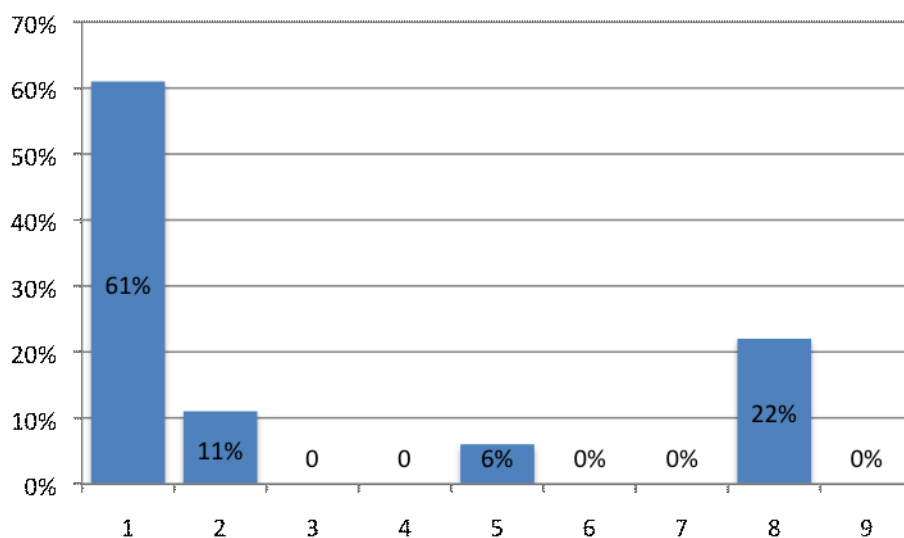

Key
1. Communication about what people and organizations are doing in various sub-regions and what they have in common
2. Marketing
3. Heritage/historical tourism
4. Tourism and natural resources sectors
5. Tourism related to marine education
6. Tourism and archaeology
7. Tourism and winter recreation
8. Product Development
9. Other

Source: Network Weaving Workshop Evaluation (2010)

2.   Tourism marketing

Figure 14. Greatest Challenges to Tourism Development
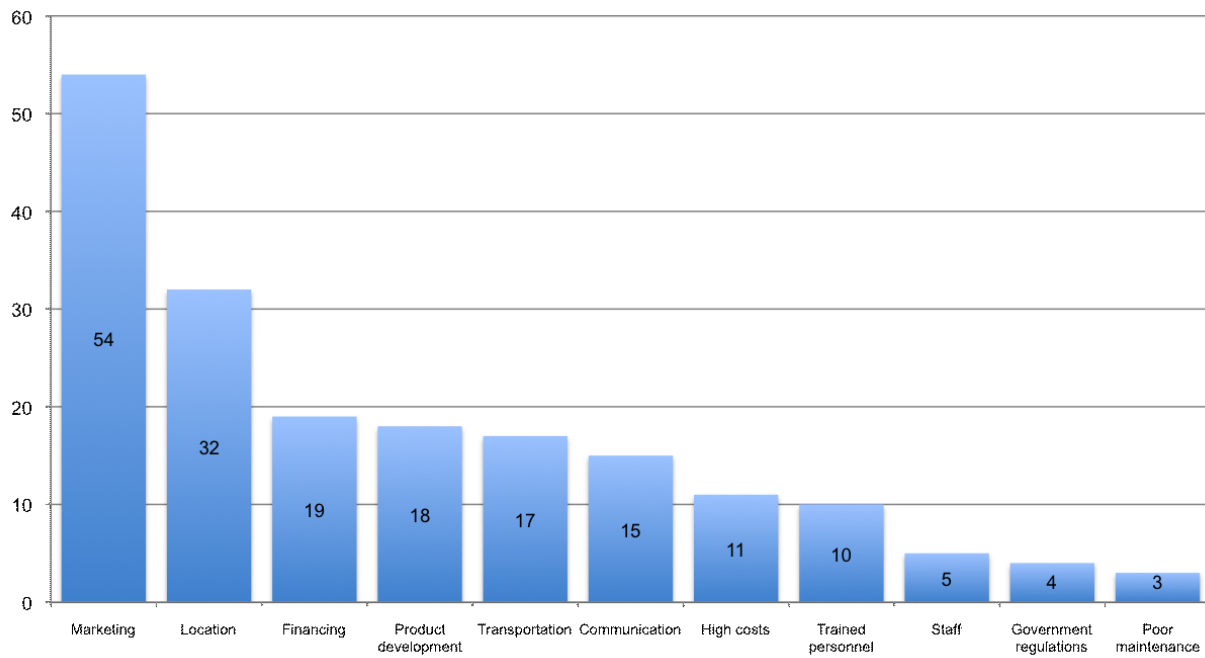
Source: Network Weaving Survey Data (2010)

Tourism marketing also emerged as a major priority from the survey. Respondents were asked what they see as the region's greatest challenge to tourism development. 54 people responded that marketing was the greatest challenge, while 32 people reported location (i.e. distance from major centres) as the greatest challenge. These two responses are linked, as the relatively remote location of the region often makes it difficult to market.

Tourism marketing was also emphasized by interview respondents as an overall challenge in the region. Most felt as though there is a general lack of awareness in the rest of the province, country and elsewhere about the region and what it has to offer. It was often suggested that the province as a whole is marketed well, but that does not translate to the tip of the Northern Peninsula. Many also mentioned the major discrepancy between the number of tourists who visit Gros Morne National Park and the number who travel north and visit L'Anse aux Meadows. People often cite statistics such as in 2008 approximately 158,000 visited Gros Morne, while only 27,000 visited L'Anse aux Meadows National Park in the Quirpon-Cook's Harbour area (Northern Tourism Partnership 2010). The Western Destination Marketing Organization (DMO) has been tasked by the provincial government to

work on marketing and product development in the region. A stronger relationship between the DMO and tourism organizations and businesses on the tip of the Northern Peninsula is needed for the region to benefit from the activities of the DMO.

Another issue raised is the lack of awareness that local people have of the tourism attractions and opportunities around them. Interviewees felt that local people should be able to act as promoters of their region, especially those in the tourism industry. For example, if accommodators are aware of attractions and activities in the region they can share their knowledge with visitors. There is work being done on this, as Nordic Economic Development Corp. is working on a tourism resource binder to be distributed to people in the tourism industry in one sub-region. However, a region wide strategy would be beneficial. In addition, many people indicated the importance for people in Gros Morne to be aware of tourism attractions further north on the Northern Peninsula. Some interviewees reported that people working in the tourism industry in Gros Morne have told people that there is not much to do further north, whereas they could be acting as ambassadors for the region. Along with these issues, respondents reported that it appears that many local people do not see or take advantage of the abundant opportunities for tourism development around them.

The marketing group at the October 2010 session reported a lack of co-operation as the largest issue in the region, and that areas have operated independently of each other. They also reported a lack of training for owners and staff of tourism operations. They identified the Trans-Labrador Highway and information technology (IT) as being new opportunities for tourism in the area. They discussed regional branding as a possible region wide initiative, as well as the possibility of co-operative marketing through marketing campaigns and brochures. They also suggested developing a network of attractions and identifying everyone's roles are and what they can do. They also discussed the importance of using IT, web-based and social networking tools for partnering and networking. The need for skills such as strategic planning and proposal writing were also explored, along with the need to see existing marketing research.

3.   Tourism based on history and heritage

When asked what the greatest asset for future tourism development was, 53 people (of 201 total respondents) stated that this was their rich history and heritage resources (Figure 15). Also, when asked which types of initiatives linking education and/or research and tourism they would be most interested in working on in the future, 49 people reported they would be most interested in creating tourism products based on local history.

Tourism based on history and heritage resources is the most popular type of tourism on the tip of the Northern Peninsula. There are numerous heritage and history organizations in the region, as well as multiple tourism sites focused on these assets (See Tables 2 and 3). The interviewees were often well aware of history and heritage initiatives in the region, and believed that it was a very strong asset. They often discussed the fact that many different cultures have lived in the area in the past, including aboriginal peoples, Vikings, and European people of various descent including the French and English. The interpretation of the history of these cultures is seen as an important way to draw tourists to the area. People also often discuss tourism based on the history of industries that have supported the region such as the fishing and logging. Because there are so many groups focused on this type of tourism, it is important for them to consider communicating about their experiences and possibly partnering on initiatives instead of duplicating effort. Although there is much going on, people still discussed the need to develop their tourism products further to reflect changing needs in the tourism industry.

Figure 15. Greatest Asset for Future Tourism Development
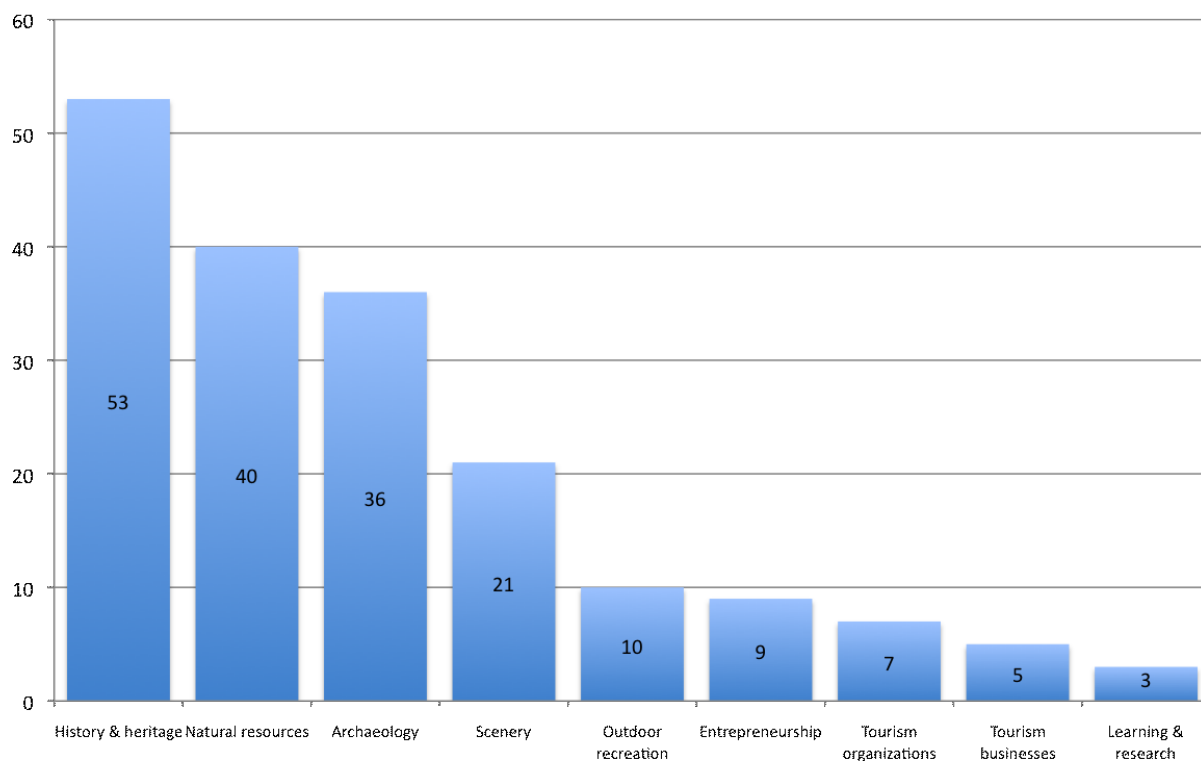
Source: Network Weaving Survey Data (2010)

4.   Tourism based on the fishing industry

Respondents were also asked which strategies linking tourism and natural resources/natural resource industries they would be most interested in working on in the future. Both of the top responses dealt with the fishing industry, with 40 people reporting they would be most interested in creating opportunities for visitors to learn more about the local fishing industry, and 35 people reporting they would be most interested in exploring the shared use of marine infrastructure by tourism and fisheries enterprises. In addition, 18 people reported that they would be most interested in providing local seafood products to local tourism enterprises and visitors (Figure 16).

Tourism based on the fishing industry is generally underdeveloped in the region, yet people felt as if it was an important priority for the future. Tourist attractions focus on the history of the fishery in communities in the region; however, examples of operations that involve tourists in the fishery of today could not be found. It was often suggested that this should be a focus, but there are many challenges with developing tourism around the current fishery. An example that was often provided was that tourists would probably like to go out in a fishing boat and see how a fisher operates his business, but insurance costs make it very difficult for a fisher to do this. Also, if fishers could sell their fish to tourists directly at the wharves this would provide an excellent tourism experience, but under current government regulations this is impossible. People felt as though there should be more linkages between these industries, as the fishery is still such an integral part of the culture and economy of the region and this should be portrayed to tourists.

Figure 16. Future Involvement in Initiatives Linking Tourism with Natural Resources
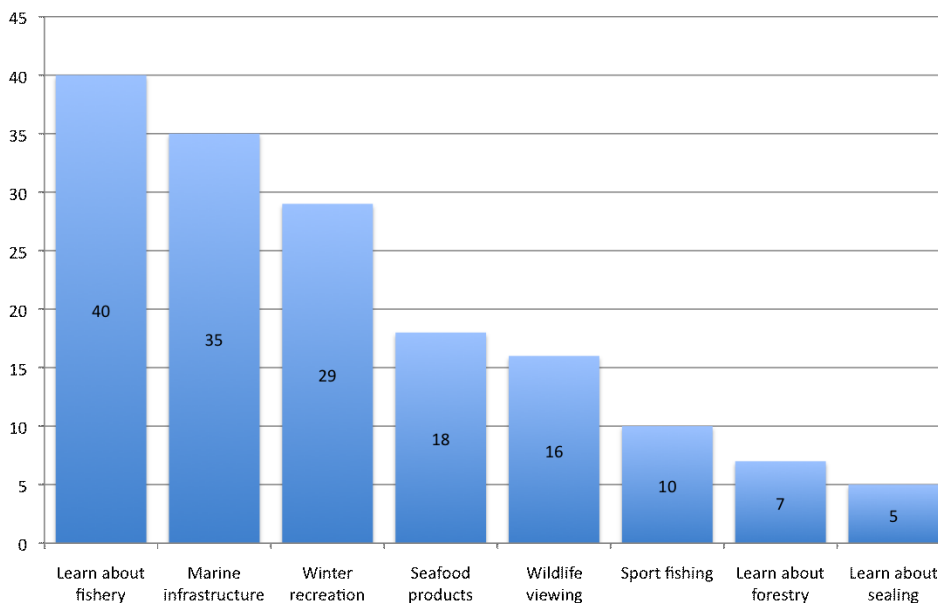
Source: Network Weaving Survey Data (2010)

5.   Tourism based on marine education

Tourism based on marine education also came out as a high priority in the survey. When asked which types of initiatives linking education and/or research and tourism they would be most interested in working on in the future, 45 people reported they would be most interested in creating tourism products focused on education about the marine environment and resources.

Tourism based on marine education was also discussed by the interviewees; however, it is an underdeveloped tourism avenue in the region. There are some seasonal boat tour operators who educate tourists about the marine environment, but this could be done on a much larger scale. People often discussed the abundance of icebergs and marine life such as whales and seabirds that tourists would be interested in learning about. However, there needs to be more entrepreneurship and work done in this area for it to reach its full potential.

6.   Tourism based on archaeology

Archaeological resources are also seen as a major tourism asset in the region. When asked what the greatest asset for future tourism development was, 36 people (18%) answered archaeological features, such as dig sites and UNESCO sites (Figure 15).

Maritime Archaic Indian Tools
Source: Parks Canada

Tourism based on archaeology, like that based on heritage and history, is quite developed in the region. There are numerous archaeological sites that have been developed, while there are others currently being developed, and more that have been discovered and development has not yet started. The abundance of sites is due to the area's location, as it has historically been the place where people first landed when

they travelled across the Atlantic Ocean. The rich archaeological resources were valued by the people interviewed, but many felt as if the importance of some sites are not recognized and thus they aren't reaching their full potential as tourist attractions. This is often because they have not fully been developed yet for various reasons and are not yet being marketed to tourists. However, there are other sites that are seen as being among the most important tourism destinations in the region, especially L'Anse aux Meadows and Port au Choix National Historic Sites.

7. Tourism based on winter recreation

Winter outdoor recreation also surfaced as a priority from the surveys. When asked which strategies linking tourism and natural resources/natural resource industries they would be most interested in working on in the future, 29 people said winter outdoor activities such as snowmobiling and skiing (Figure 16).

Winter recreation was a tourism opportunity that many interviewees recognized as being an underdeveloped, yet very important aspect of the tourism industry on the tip of the Northern Peninsula. They recognized the potential that winter tourism has to lengthen the tourist season and make the tourism industry more viable for those involved. It is difficult to make a living from a three to four month season, but the inclusion of winter tourism can help overcome this obstacle. Many examples were given for winter tourism, including snowmobiling, skiing, snowshoeing and ice fishing. Tourism based on snowmobiling has been developed in the region with respect to guided tours, but there is nowhere in the region to rent a snowmobile. There are obstacles to this, including the high costs of snowmobiles, insuring them, and the unpredictability of the weather. However, people were optimistic that these could be overcome and there is much opportunity in this tourism venture.

8.   Tourism packaging

Many of the individuals interviewed reported that more work needs to be done on tourism packaging in the region. This could be done in many ways, either by organizing tourism sites and attractions based on a specific theme (such as archaeology, marine education, hunting, crafts, etc.), or by different themes that could complement each other when trying to market to a couple with varying interests (such as a combined hunting and craft package), or by a specific sub-region (such as the eastern side of the Northern Peninsula). Tourism packaging is often organized by the accommodation businesses in an area; however, most of these businesses in the region have not been active in offering packages to date. There has been some training in the region on packaging and a few organizations have tried it, but it is still a very new concept. Many of the people interviewed

expressed that this is a vital part of marketing tourism in the area, and tourism operators could advance their own operations and the region as a whole by partnering with others and developing tourism packages.

The Product Development and Linkages group at the October session expressed that there is currently a lot of talk about how to move forward in the sector but there is not a lot of action. There are many sites, trails and festivals in the area but they are not tied together. They discussed the opportunities that become possible through connecting with others, which is often not done. An example of this is that there are many trails developed but they do not link together. They suggested that they have everything in the region they need for tourism, but they just need to package it. Region-wide marketing tools and people are also needed. The opportunity to use Gros Morne as a place to market the Viking Trail was discussed along with the need to create a Northern Peninsula brand. The need for more interpreter training was also explored, possibly through video. The need for a meeting to discuss packaging and the identification of next steps was determined.

9. Product development

Product development is a very broad concept, overlapping with many of the above opportunities, however it came up in various contexts and thus warrants its own attention. Interviewees reported that it was important for tourism organizations or businesses to plan their product development taking into consideration the changing needs and wants from tourists. In addition, people discussed the need for tourism experiences throughout the region to be developed to a high standard in order for tourism to be successful. There are obviously many challenges to product development, such as a lack of funding; however, there is support in the region for people to develop their products, such as the regional economic development boards, community business centres and rural development associations. These organizations offer many services related to product development, such as developing marketing and management plans and helping to get funding. In addition, some interviewees reported that there is a great deal of repetition with respect to products available in tourism shops in the region, and that new and innovative products are needed. Product development has been recognized as a priority by both the Viking Trail Tourism Association (VTTA) and the DMO, both of which are working to identify product development priorities.

10. Experiential tourism and tourism based on traditional activities and skills

Most of the interviewees recognized that tourists today expect more experiential tourism instead of static experiences. They recognize that tourists want to take part in activities instead of only looking at them. There are some examples in the region where this is occurring (see Raleigh Historical Fishing Village); however it is seen as a new concept in the region and is not undertaken by many tourism organizations or businesses. Many interviewees recognized the need to make experiential tourism a priority into the future so the region doesn't fall behind other destinations. Some examples of experiential tourism given were participating in making crafts, food or other traditional activities, as well as archaeological mock digs.

> **Raleigh Historical Fishing Village**
>
> The Raleigh Historical Corporation puts the concept of experiential tourism into action. They offer tourists the opportunity to sleep in old fashioned bunkers, fish and set fishing gear, gather and cook their own mussels, help split and dry fish, and visit fishing berths and stages.

Some interviewees noted that there is the possibility for tourism to take advantage of the unique culture of the tip of the Northern Peninsula and the local skills that people possess. These skills can be translated into an experience for the tourist where they get to help with doing things that local people do or have done in the past. With respect to the fishery this could follow the example of Raleigh for example, or it can also apply to other activities such as boat building, berry picking, gardening, cooking, making jam, and craft making such as rug hooking, knitting, or spinning wool. Another large part of this opportunity could be storytelling in various capacities and contexts, as this is also a traditional skill that has not been capitalized. In total 30 respondents suggested that they were willing to provide guided tours of their facility or a topic or area they are knowledgeable about in helping to develop the tourism sector. Another 13 were interested in teaching people their skills or knowledge.

Many interviewees reported that community residents in the region do not value their own skills and abilities enough to parlay them into the tourism industry. Women in the region often make beautiful crafts and art such as knitting, embroidery, lace and hooked mats; however they often do not see the value in these things. They could sell their work (probably for a higher price than they think by using resources like the internet) or they could use their abilities to teach other people to make these pieces. In addition, tourists are often coming to experience the Newfoundland culture as much as anything else. The people in the region could use this to their advantage by storytelling, singing, or other traditional activities that they undervalue currently.

Other issues

Entrepreneurs and Volunteers

An issue throughout rural Newfoundland is an ageing population, as young people are migrating to the capital of St. John's or outside of the province after they get their education. This trend poses challenges for many aspects of rural life, but one way it affects tourism is by creating a lack of entrepreneurs and volunteers. Interviewees reported that the same community members are volunteering repeatedly, and that many of them are ageing with no younger community members to replace them. In addition, there are often few people of working age to start new and innovative tourism businesses such as those focused on experiential and ecotourism. As many of the current business owners are preparing to retire individuals willing to pursue these innovative opportunities are lacking. Many non-profit organizations in the region have developed tourism assets, but there is a need for the private sector to become more engaged in the tourism industry to sustain it into the future.

Poor Communications and Transportation Infrastructure

Poor communications and transportation infrastructure is an issue throughout the region. Although all communities have internet access, some communities (often south of Anchor Point) do not have high speed internet. This becomes an issue when attempting to utilize social media applications for communication and training. Cellular phone and satellite service is also unreliable in some parts of the region. The transportation system is a challenge in all three forms: ground, air and water. The Viking Trail (Route 430), which all of the communities branch from, is not a part of the Trans-Canada Highway and suffers from disrepair in some areas. The routes off of this highway to some communities are also unpaved or in disrepair, affecting tourist visitation. Air travel is an issue because cost is often prohibitive. Flight costs to St. Anthony or Deer Lake are significantly higher than many people are willing to pay. Travel by boat is also an issue due to long wait times to get into or out of the province. In addition, there is no public transportation in the area and a sever lack of rental cars, restricting many tourist's ability to travel around the region.

Government Regulations and Red Tape

Another challenge that was reported by many interviewees (although not emphasized as one of the region's greatest challenges in the survey) was government regulations and red tape in various forms. One example is the time it takes to deal with multiple government departments to launch a tourism-related enterprise, thus it would be beneficial for departments to have a more coordinated

and integrated approach with respect to tourism. For example, the time it takes for an organization to go from a tourism idea to implementing that idea and getting a finished product is often very long. It was reported that this is sometimes due to the need to go through different government departments for funding or approval, and the more departments you need to deal with the longer it will take. There are also regulatory issues with respect to certain avenues of the tourism industry, such as tourism based on the current fishery, and these will also need to be addressed for those avenues to move forward successfully.

Discussion - Networking in the Northern Peninsula Region

Based on the data from the network weaving survey, key informant interviews and regional consultations a number of key findings emerge regarding the nature and extent of the development networks in the region and how networks can be enhanced. When looking at the nature and extent of the development linkages and networks on the Tip of the Great Northern Peninsula four main thrusts emerge:

- a dense core

- the importance of regional people

- the disconnection of sub-regions

- limited cooperation and connections with networks external to the region.

Each of these findings is explored further below.

Dense Core

The *dense core* of the collaboration network indicates that there is a great deal of ongoing collaboration within the region (see Figure 8). The amount of linkages with others may have been over-reported by respondents, as people may have only talked to an individual but indicated that they have worked with them before. In either case, there is a great deal of communication ongoing in the regional network despite many identified opportunities for further communication and collaboration. This was reflected in consultations with the facilitation group, interviews and information sessions. Although the geographical area that is covered by this region is large, many people know each other either in informal or work capacities. For example, people in St. Anthony and Hawke's Bay know each other although these places are over 200 km apart. However, as our research also shows, people in the local region think that communication and collaboration needs to be carried out more. Just because people know each other does not mean that they are openly discussing important aspects of the region, or that they are collaborating with each

other to move themselves or the region forward. Also, as is indicated below, most of the communication is between people in the sub-region and regional leaders or among these regional individuals. People are communicating much less between the sub-regions.

Importance of Regional Individuals

People who have been defined as 'regional' because they play a leadership role (e.g. senior staff or Chair of a Board of Directors) in region wide organizations are important players within the network. Regional people, representing organizations such as the regional economic development boards, the Community Business Development Centre, Joint Council, rural development and regional tourism associations, College of the North Atlantic and provincial agencies with regional staff, particularly Innovation, Trade and Rural Development, Department of Tourism and Rural Secretariat, are often at the centre of the network maps (see Figure 8), and many were found as having high scores in all four metrics (awareness, connector, influence and integration). These types of departments or organizations are greatly involved in the region because they provide many services to local tourism operators and people in other industry sectors. They often help people to get the funding or financing they need, as well as provide services such as hosting workshops on practical tools and approaches that can help individuals advance their operations or businesses, such as strategic planning and marketing plans. As shown in Figure 10 showing the tourism network, regional people also help to connect the different sub-regions in the area. However, these individuals can do more to explicitly connect individuals in the sub-regions with each other and help them form collaborative projects in addition to acting as a conduit for information and assistance.

Sub-regions disconnected

As also seen in Figure 10, the sub-regions are disconnected, especially when looking at those involved in the tourism industry. Many of the network maps located on the project's website (http://networkweavinggnp.wordpress.com/) also show this disconnection. When looking at maps of the survey priorities that are coloured by sub-region, it can be seen that the respondents from indvidual sub-regions are often clustered together in groups that collaboration and/or share ideas despite common interests that span the entire region. One noticeable trend throughout the maps, however, is that people from Eddies Cove East to Castors River South are often connected with people from other regions (see Figure 10). When this was presented to people in the region it made sense to them because that sub-region is located right in the middle of all the other sub-regions and is split

between two different economic development boards. A number of individuals from Main Brook to Englee sub-region are also central to the network (see Figure 8). Within the network weaving session the disconnection between sub-regions was also discussed as an issue that needs to be addressed for development initiatives to move forward in the region. Connections are most effectively made when people work on collabortive projects; however, for this to occur among the sub-regions network weavers who are skilled at identifying potential projects and facilitating connections across sub-regions are required. The tourism priorities identified above represent areas of common interest around which these connections can be created or strengthened.

<p align="center">Lack of external connections</p>

The network maps of the whole network (Figure 8, for example) show that people within the region generally have a lack of external contacts. When asked for names of people to survey outside of the region, the facilitation group named only 27 people. Also, every person who took the survey was asked who they worked with other than those who were already named, and they only provided 34 additional names. Most of the people external to the region who were named by either the facilitation group or the survey respondents were still from western Newfoundland (Corner Brook or Gros Morne area) or from St. John's, Newfoundland. There were very few named contacts who were located outside of the province. In order for people in the region to access new ideas and resources they must build this periphery of external contacts. Regions throughout the world are developing very innovative approaches to tourism, for example, that could be an inspiration to the region. Those individuals who were identified as innovation seekers could be recruited to do further research on innovative tourism projects from around the globe, for example, and then share this information through the larger regional network.

It has been especially useful to have local knowledge about the network incorporated into the process through consultation with the facilitation group and others in the region. The combination of information provided from network analysis and from local expertise has allowed us to see that people in the region have a lack of external contacts and that connections in the region are highly dependent on certain individuals and groups. The network maps also show who is interested in various initiatives, which has shed light on current and potential networks surrounding the identified priorities. These insights can contribute to local networks and development in the future because 'network weavers' can further utilize the network maps to build networks.

Network mapping and analysis has also demonstrated the relative positions of individuals in the network. This provides information about who is central in the network and who may be the current and potential 'network weavers' in the region. Network weavers are individuals who take responsibility for making their networks more effective. Network weavers do this by helping people identify their interests and challenges, connecting people strategically where there's potential for mutual benefit, and serving as a catalyst for self-organizing groups. Network weaving is a leadership approach that enables networks to become more effectively connected and able to cluster into collaborative work groups.

Although many individuals are natural network weavers, training and support enables these individuals to become much more skilled in their efforts. The facilitation that has occurred through this project will also enhance development networks because people have been brought together to discuss tourism networks in the region, and those with similar interests can move forward on their priorities. This process can be facilitated, however, through a deliberate effort to develop and support network weaving activities that will move forward from the results of this research.

Training will be an important element of these future activities. In addition to further training in network weaving tools and approaches, priorities for training and workshops identified at the October 2010 session included:

- How to use social networking for marketing
- How to find the money/funding businesses and organizations need
- Success stories – How did they do it? How did they overcome challenges?
- Access to research so they know what will work and be profitable
- How do groups assess the economic value of initiatives they want to do? How do they use research to do this?
- How to work on branding

Organizing to address these training and information needs represents yet another opportunity to strengthen networks for development in the tip of the Northern Peninsula region.

Recommendations for Next Steps

The research discussed in this report has revealed strong regional leadership that connects the sub-regions. However, it also showed that other people within the sub-regions are not well-connected and also that regional leaders could be doing more to seek ideas and support from outside the region to pursue their priorities.

Our recommendation is that regional leadership be encouraged to strategically link people from the regions with each other and with external resources. This could be accomplished through a five-part strategy:

1. Convene a group of innovation seekers to research innovative tourism projects that may have applicability to the Tip of the Peninsula. Have them share results with others through techniques such as webinars or social media in addition to traditional communication mechanisms. This approach could then be applied outside of the tourism sector as well.

2. Organize several collaborative groups to work on regional, cross sub-regional projects based on the priorities discussed above and identified through the network survey.

3. Provide coaching in network leadership, especially to the regional leaders who will staff these work groups.

4. Provide training and coaching in the use of social media so that this regional collaboration and network weaving work does not always require expensive face-to-face meetings (i.e., to provide more cost effective communication alternatives in terms of both financial and human resources).

5. Continue to monitor network development in the region and evaluate and reflect on the outcomes of these efforts on an ongoing basis and by repeating network mapping and analysis periodically (e.g. in two to three years).

References

Adger, W. (2003). Social capital, collective action, and adaptation to climate change. *Economic Geography, 79*(4), 387-404.

Amdam, J. (2003). Structure and strategy for regional learning and innovation: Challenges for regional planning. *European Planning Studies, 11*(4), 1469-5944.

Annis, R., and Gibson, R. 2006 'Hooked! A case study of the impacts of broadband in rural and northern communities' *Making Waves, 17*(1), 13-16.

Asheim, B. 2007 'The learning firm in the learning region: innovating through cooperation and social capital building' in *Europe - Reflections on Social capital, Innovation & Regional Development*, eds. M. Landabaso., A. Kuklinski., and C. Román (WSB-NLU)

Barbieri, P. (2003). Social capital and self-employment: A network analysis experiment and several considerations. *International Sociology, 18*(4), 681-701.

Burt, R. (2000). The network structure of social capacity. In B. Staw and R. Sutton (Eds). *Organizational Behaviour* (pp. 345-423). London: Elsevier Science.

Connelly, S., Richardson, T., & Milles, T. (2006). Situating legitimacy: Deliberative arenas and the new rural governance. *Journal of Rural Studies*, 22, 267-277.

Cooke, P. 2001 'From Technopoles to Regional Innovation Systems: The Evolution of Localised Technology Development Policy' *Canadian Journal of Regional Science*, 24, 21-40

Cooke, P. and Morgan, K. 1998 *The Associational Economy: Firms, Regions, and Innovation*. (New York: Oxford University Press)

Dicken, P. 2007 *Global Shift: Mapping the changing contours of the world economy* (London: Sage)

Field, J. (2008). Social capital (2nd Ed). Oxon, UK: Routledge.

Florida, R. 1995 'Toward the learning region' *Futures* 27,527–536

Goldstein, H. 2005 'The role of knowledge infrastructure in regional economic development: the case of the Research Triangle.' *Canadian Journal of Regional Science* 28(2), 199-224)

Grootaert, C., & van Bastelear, T. (2002). *Understanding and measuring social capital: A multidisciplinary tool for practitioners*. Washington DC: World Bank.

Grabher, G. (2006). Trading routes, bypasses, and risky intersections: Mapping the travels of 'networks' between economic sociology and economic geography. *Progress in Human Geography, 30*(2), 1-27.

Holley, J. (2011). Network Weaver Handbook: A Guide to Transformational *Networks.* Athens, Ohio: Network Weaver Publishing.

Holley, J. (2007). *Mapping the positive deviance MRSA Prevention Networks at the VA Pittsburgh Healthcare System Acute Care and Long-term Care Facilities (Plexus Institute Monograph).* Bordentown, NJ: Plexus Institute.

Holley, J. (2005a). Transforming your regional economy through uncertainty and surprise. In R. McDaniel and D. Driebe (Eds). *Uncertainty and Surprise in Complex Systems* (pp. 165-176). Berlin: Springer-Verlag.

Holley, J. (2005b). *Regional entrepreneurship networks: A handbook*. Athens, OH: ACEnet Institute.

Hughes, A. (2007). Geographies of exchange and circulation: Flows and networks of capitalism. *Progress in Human Geography, 31*(4), 527-535.

Krebs, V., & Holley, J. (2004a). Building sustainable communities through network building. *Non-Profit Quarterly, 11*(1), 46-53.

Krebs, V., & Holley, J. (2004b). Network metric definitions – workshop handout.

Law, J. (1992). Notes on the theory of the action network: Ordering, strategy and heterogeneity. *Systems Practice, 5,* 379-393.

Lindsay, C., Greig, M., & McQauid, R. (2005). Alternative job search strategies in remote rural and peri-urban labour markets: The role of social networks. *Sociologia Ruralis, 45*(1/2), 53-70.

Manring, S. (2007). Creating and managing interorganizational learning networks to achieve sustainable ecosystem management. *Organization & Environment, 20*(3), 325-346.

Northern Tourism Partnership (201). Building a tourism cluster in Northern Newfoundland. Proposal submitted to the Newfoundland and Labrador's Rural Secretariat and Memorial University – Sire Wilfred Grenfell College.

Ommer, R. and research team. 2007 *Coasts Under Stress: Understanding Restructuring and the Social-Ecological Health of Coastal Communities* (Montreal: McGill-Queen's University Press)

Ommer, R., and Sinclair, P. 1999 'Systemic Crisis in Rural Newfoundland: Can the. Outports Survive?' in *Communities, Development and Sustainability Across Canada* eds. J. Pierce and A. Dale (Vancouver: UBC Press)

Parks Canada (2011). Parks Canada – Port au Choix National Historic Site. Accessed 21 March 2011 from http://www.pc.gc.ca/lhn-nhs/nl/portauchoix/natcul/maritime.aspx.

Pelling, M, & High, C. (2005). Understanding adaptation: What can social capital offer assessments of adaptive capacity? *Global Environmental Change, 15*, 308-319.

Putnam, R. (1993). *Making democracy work: Civic traditions in modern Italy*. Princeton: Princeton University Press.

Red Ochre Regional Development Board Inc. (2010). *The Great Northern Peninsula Heritage Network: Heritage Cluster pilot project proposal*. Parsons Pond, NL: Author.

Reimer, W. (2005). A rural perspective on linkages among communities. Ottawa: Infrastructure Canada.

Rural Secretariat (2010). St Anthony – Port au Choix Regional Council of the Rural Secretariat, Executive Council Annual Activity Report 2009-2010. St John's: Government of Newfoundland and Labrador.

RUPRI (Rural Policy Research Institute). 2006 'Eight Principles for Effective Rural Governance' University of Missouri-Columbia

Savitch, H. and Kantor, P. 2003 *Cities in the International Marketplace: The Political Economy of Urban Development in North America and Western Europe* (Princeton University Press)

Sorensen, M., de Peuter, J., Bollman, R., Lambert, J., Binet, C., & Hannes, J. (2005). Rural Newfoundland and Labrador profile: A ten-year census analysis (1991-2001). Ottawa: Rural Secretariat, Agriculture and Agri-Food Canada.

Statistics Canada (2006). 2006 community profiles (Cat No. 92-591-XWE). Ottawa: Author.

Statistics Canada (2005). General social survey: Criminal victimization. Accessed from http://www.statcan.ca/Daily/English/051124/d051124b.htm.

Statistics Canada (2004). Canada survey of giving, volunteering, and participating. Ottawa: Author.

Storper M 1997 *The regional world: territorial development in a global economy*, The Guilford Press, New York

Vennesland, B. (2004). Social capital and networks in forest-based rural economic development. *Scandinavian Journal of Forest Research, I9* (Suppl. 5), 82-89.

Vodden, K. 2009a *New Spaces, Ancient Places: Collaborative Governance and Sustainable Development in Canada's Coastal Regions,* PhD thesis (Burnaby, BC: Simon Fraser University Department of Geography).

Vodden, K. 2009b 'Experiments in Collaborative Governance on Canada's Coasts: Challenges and Opportunities in Governance Capacity' in *Remote Control:*

Governance Lessons for and from Small, Insular and Remote Regions, eds. G. Baldacchino, R. Greenwood, and L. Felt (St. John's, NL: ISER Press)

Wilson, P. (1997). Building social capital: A learning agenda for the twenty-first century. *Urban Studies, 34*, 745-760.

Wellman, B. (1988). Structural analysis: From methods and metaphors to theory and substance. In B. Wellman & S. Berkowitz (Eds.) *Social Structures: A Network Approach* (pp. 19-61). Cambridge: Cambridge University Press.

Woolcook, M. (2002). Social capital in theory and practice: Where do we stand? In S. Ramaswamy (Ed). *Social Capital and Economic Development: Well-Being in Developing Countries*. Cheltenham, UK: Edward Elgar.