

Resources and Sustainable Development in Arctic (ReSDA)
SSHRC Major Collaborative Research Initiatives Program

June 29, 2011

Milestone Report

For the period April 1, 2011 to October 1, 2014

Prepared by:

**Chris Southcott, Department of Sociology, Lakehead University
955 Oliver Rd. Thunder Bay Ontario P7A 4C2**

**Principal Investigator, Resources and Sustainable Development in the Arctic
Project (ReSDA)**

and

**Valoree Walker, Northern Research Institute, Yukon College
500 College Drive, Box 2799, Whitehorse Yukon YT Y1A 5K4**

**Principal Coordinator, Resources and Sustainable Development in the Arctic
Project**

1. Project Framework

This project aims to find ways to ensure that a larger share of the benefits of resource development in the Arctic stay in the region with fewer costs to the communities it affects the most. In this way, research will be targeted towards better understanding how the sustainable development of Arctic natural resources can be pursued in a manner that improves the health and well-being of northern communities and conserves the northern environment.

This project takes place in the context of a range of social, economic, and environmental challenges that those in the Arctic face. Historically, the exploitation of natural resources in the North has led to little benefit for the communities in the region. Instead, these communities face further challenges as a result of the impacts of resource extraction. This issue is all the more pressing given the increased demand for natural resources globally, a demand that the Arctic may become a major supplier for in the future. Thus, this project seeks to find new development and policy tools so that Arctic communities can better face the impacts of resource development. To complement this, it will also examine new ways of developing resources so that communities are able to build their capacity and accrue greater benefits.

There are four overarching research themes, under which a number of subprojects will take place. The themes include: Sustainable Regions, Sustainable Communities, Sustainable Cultures, and Sustainable Environments. Across each of these subprojects the measuring, analyzing and managing of the impacts and benefits of resource development will be considered, with examples from a range of resource sectors. In response to the changing needs and issues in the Arctic, new subprojects will be developed over the next seven years that ReSDA operates. Those subprojects that are currently planned are listed in Appendix A.

1.1 – Research Themes

Sustainable Regions

This theme is focused on policy-related research that will allow the regions of the North to better manage and mitigate the negative impacts of resource development. It will also aim to find new tools that allow these regions to benefit more from future resource exploitation. The foundation for this research was established by the Research Development Initiative project, *Understanding the New Northern Economy*. In light of the shifting political landscape and social change, in particular the movement for Aboriginal self-government, a new analysis of policy options is necessary. This theme will attempt to do just that, and in doing so its research results will be better able to respond to the needs of northern regions. Each of the subprojects will also actively engage with the public and policy-makers to ensure an open dialogue continues. The coordinator of the Sustainable Regions theme is Frances Abele, from Carleton University. Other team members include: Michel Beaulieu (Lakehead University), Ben Bradshaw (University of Guelph), Ken Coates (University of Waterloo), Gerard Duhaime (Université Laval), Lassi Heininen, (University of Lapland, Finland), Arn Keeling (Memorial University), Whitney Lackenbauer (University of Waterloo), Suzanne Mills (McMaster University), Bram Noble (University of Saskatchewan), Thierry Rodon

(Université Laval), John Sandlos (Memorial University), Stephan Schott (Carleton University), Deborah Simmons (University of Manitoba).

Sustainable Communities

While the social, economic, and environmental challenges that communities in the Canadian Arctic face are varied, these communities are also increasingly participating in developing strategies to mitigate these challenges. This project seeks to build on these efforts to find new ways that northern communities can handle the challenges presented by resource development. In doing so, communities have the opportunity to become involved in creating a more sustainable future for themselves. Coordinated by Chris Southcott (Lakehead University), the research projects under this theme will focus primarily on community-specific impacts. Other team members include: Nils Aarsaether (University of Tromsø, Norway), Wiktor Adamowicz (University of Alberta), Matt Berman (University of Alaska, Anchorage), Susan Chatwood (University of Toronto), Gail Fondahl (University of Northern British Columbia), Tim Heleniak (University of Maryland), Lee Huskey (University of Alaska, Anchorage), Mark Nuttall (University of Alberta), Joan Nymand-Larsen (University of Akureyri, Iceland), Andrey Petrov (University of Northern Iowa), Birger Poppel (University of Greenland), Larisa Riabova (Kola Science Centre, Russia), Peter Schweitzer (University of Alaska, Fairbanks), Florian Stammler (University of Lapland, Finland), Olli Westerlund (Umeå University, Sweden), Gary Wilson (University of Northern British Columbia), T. Kue Young (University of Toronto).

Sustainable Cultures

The purpose of this research theme is to highlight the importance of implementing resource development in such a way that it supports the cultures of Indigenous peoples. The Indigenous communities that dominate the North are struggling to maintain their culture and control over their communities after decades of dramatic social change. Because of this, the research projects under this theme aim to find ways that resource development improves the ability of Indigenous communities to access the economic and social activities of the region. The projects are coordinated by David Natcher (University of Saskatchewan). Other team members include: James Ford (McGill University), Chris Furgal (Trent University), Martha Dowsley (Lakehead University), Thibaut, Martin (UQO), Thierry Rodon (Université Laval), Virginia Gibson (University of British Columbia), Hayley Hessel (University of Saskatchewan).

Sustainable Environments

Central to this theme is an integrated understanding of what a sustainable environment means. Many of those in the Arctic depend on the natural resources of the North's fragile ecosystems in a number of ways; they are crucial to social, economic and cultural well-being. The subprojects will highlight the dual importance of natural resources to both the subsistence and the market economy. The subprojects will be informed by a variety of stakeholders, from Indigenous knowledge holders to arctic scientists, in order to gain a full spectrum of perspectives on how sustainable environments can be pursued. This theme is coordinated by Brenda Parlee (University of Alberta). Other team members include: Ken Caine (University of Alberta), Harvey Lemelin (Lakehead University),

James Ford (McGill University), Chris Furgal (Trent University), Wiktor Adamowicz (University of Alberta).

1.2 Stakeholder Integration and Participation

The four research themes and various subprojects are reliant on the participation of a range of stakeholders and a number of strategies are in place to ensure their integration. Those carrying out the research projects are from an array of disciplines and sectors, involving representatives of community organizations, different levels of government, the private sector, and the non-profit sector. Making connections to the northern communities that are a part of the projects is also key. For example, several of the subprojects rely on community researchers to gather information. This not only creates a local capacity to monitor projects once complete, but also establishes a stronger connection to the community and its resources. At a larger level, ReSDA will also seek the participation of others within the research community. This will be achieved, for example, through creating linkages to related international research projects and accessing existing research networks through a partnership with the University of the Arctic.

Each of the subprojects will utilize a variety of research methodologies according to the needs of the project. For example, Community Research Workshops (CRWs) will be used by many of the research leaders to improve community participation. As an overarching methodology however, ReSDA will use participatory action research (PAR). PAR will guide the research in an attempt to deal with locally-relevant challenges by founding a close and democratic relationship between participants and researchers. It actively encourages shared ownership over the research process and results, community reflection and action, and social action. Relatedly, the research activities will also hold a central place for traditional knowledge and Inuit Qaujimagatuqangit.

The integration of the research team members will begin with ReSDA's first national workshop on November 24-25, 2011 in Yellowknife, NWT. This will allow researchers to familiarize themselves with subprojects across the four themes, exchange information, and network.

2. Project Deliverables

TYPE OF DELIVERABLE	DELIVERABLE	DATE	ESTIMATED COST (\$) (IF APPLICABLE)
Research Exchange Activities	Baseline Indicators Workshop, Yellowknife, (Sustainable Communities Project 4)	Sept. 18,19 2011	\$20,000
Research Exchange Activities	2011 National ReSDA Workshop, Yellowknife	Nov. 24, 25 2011	\$30,000
Research Exchange	Social and Environmental Impact Assessment Workshop, Tromso,	Jan. 21, 22,	\$10,000

Activities	Norway (Sustainable Environments Project 2)	2012	
Research Exchange Activities	Education and Resource Development in the Arctic Workshop (Sustainable Cultures Project 6) Vancouver, BC	April 14, 2012	\$8,000
Research Exchange Activities	Migration and Commuting Work in Arctic Resource Development, Vienna, Austria (Sustainable Communities Project 2)	April 6,7 2012	\$8,000 (Most costs paid for by Austrian Science Foundation)
Research Exchange Activities	2012 National ReSDA Workshop, Whitehorse, Yukon	Nov. 2012	\$30,000
Research Exchange Activities	2013 National ReSDA Workshop, Location to be determined	Nov. 2013	\$30,000
Research Exchange Activities	4 Additional Project-based Research Workshops To be determined	By Oct. 2014	60,0000
Establishment of Northern Social Science Laboratories	ReSDA Social Science Research Labs to be operational in Thunder Bay, Whitehorse, Inuvik, Iqaluit, Kuujjuaq, Goose Bay	By April, 2013	0 (Funding from CFI Grant)
Publications	Edited book based on 2011 National Workshop, Edited book based on 2012 National Workshop, Edited book based on 2013 National workshop	By Oct., 2014	\$24,000
Publications	10 Refereed Journal Articles	By Oct., 2014	Not applicable
Outreach	Website operational	Sept. 2011	\$10,000
Outreach	7 ReSDA newsletters	By Oct. 2014	\$14,0000
Outreach	Documentary film and associated web and social media material	By Oct. 2014	\$20,000

3. Outreach

The outreach plan for the research project is divided into three sections, with three target audiences. This will allow for further stakeholder involvement, information dissemination, knowledge transfer, and research networking. A communications coordinator has been hired in order to organize the implementation of each component.

The first aspect of this plan is to provide outreach to northern communities, which will be carried out through offering:

- Both national and regional partner/stakeholder workshops – held annually, these workshops will involve both stakeholders and the public, and will be organized in a similar way as the Community Research Workshops. This will allow those involved in the projects to collaborate with one another, as well as receive comments and validation from the community.
- Subproject Community Research Workshops – as previously mentioned, these workshops allow researchers to present their work to community members, and in return receive comments and validation
- Web-site – although the official web-site has yet to be launched, an interim site has been established until the communications director is hired. The temporary web-site can be found at: <http://dl1.yukoncollege.yk.ca/resda/> . When fully operational, the web-site will offer all information that is relevant to the various projects, such as research summaries, newsletters, past presentations, and web-based training.
- Plain language newsletter – will be sent to all partners and stakeholders. Each of the subprojects will be expected to produce a newsletter and ReSDA as a whole will also create one. These will be made available to the public on the web-site.
- Learning materials – in conjunction with the University of the Arctic, ReSDA will produce a set of materials related to resource development for the purposes of education and training.
- Community library distribution – all of ReSDA's printed material will be sent to all northern community libraries in the region
- Documentary films – with the help of the research team leaders, a documentary series will be created to feature each of the research themes in four one-hour segments. These will then be sent to schools and libraries in northern communities.

The second target audience is policy makers and industry. Outreach to this sector includes:

- Special workshops for government policy makers – an annual workshop will be held specifically for policy makers and industry representatives in order to emphasize the policy implications of the research being done.
- Policy relevant research reports – starting in the fourth year of the project, ReSDA will create a number of reports that detail the policy implications of the research

results. These will be distributed specifically to government and industry stakeholders, as well as made available to the public on the web-site.

Finally, outreach will also be directed towards the research community through:

- Peer-reviewed journal articles – will be produced by each subproject, in addition to a series of general summary articles
- ReSDA Research Report Series - will synthesize the results of the subprojects and then be peer-reviewed. These volumes will also be available on the website.
- Edited Summary Volumes – in year four of the project, the first volume summarizing the research results will be published. A second will also be published in the seventh year.
- Partnerships with the University of the Arctic, International Arctic Social Sciences Association, International Arctic Science Committee, Northern Research Forum, and certain Working Groups of the Arctic Council (such as the Sustainable Development Working Group)
- Presentations at the International Congress of Arctic Social Sciences (starting in 2011), an international workshop on Arctic resource development
- Presentations at the Northern Research Forum in 2012, 2014, and 2016

4. Student Training

A central theme within the ReSDA projects is to encourage sustainable resource development in a manner that enhances the benefits for northerners. Accordingly, the project aims to improve the capacity of northern communities to train and retain highly qualified personnel through its own activities. Where possible, the subprojects will give preference to students that are based in or originate from Northern Canada, with a particular focus on Indigenous students from the region. In total, 41 students will be hired; 31 at the Master's level, 10 at the Ph.D level, and 5 Post-doctoral positions. These students will be guided by the project Principal Investigator and/or the Co-investigator. They will also work closely with community partners in their work. These numbers are higher than those listed in the original proposal due to the addition of several new international projects.

In order to further student training, ReSDA will undertake several initiatives. First, it will form a Graduate Student Network, which will allow students to interact and share experiences with one another. This group will also hold annual meetings and workshops as a part of the ReSDA national workshops. Students will also benefit from ReSDA's partnership with the University of the Arctic, which will give them access to the university's Thematic Networks. These networks offer a variety of international collaboration, training, and knowledge transfer opportunities. Finally, as the project develops the research findings will be adapted to establish university and college-based programs related to resource development.

5. Management Structure

The structure of the ReSDA management system is built on past experiences with the Social Economy Research Network of Northern Canada (SeRNNNoCa). Below, Figure 1

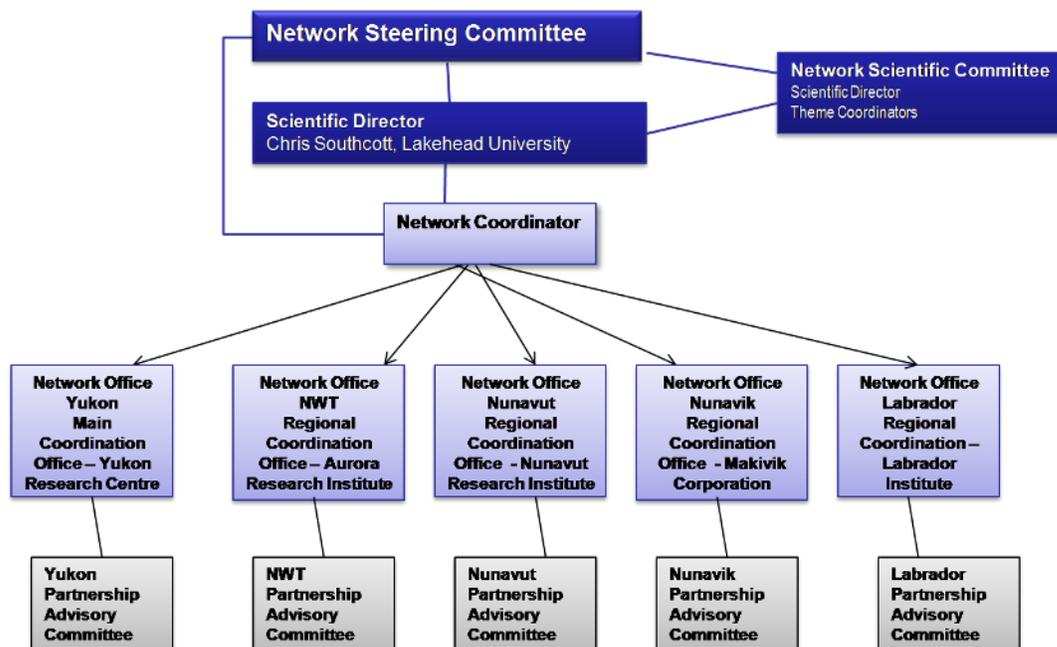
outlines this structure. As a whole, ReSDA will be overseen by Scientific Director/Principal Investigator Chris Southcott and organized by the Principal Coordinator Valoree Walker. The main coordination office for ReSDA is housed at the Northern Research Institute at Yukon College. Four supporting regional offices and social science laboratories are held at the Aurora Research Institute in NWT, the Nunavut Research Institute, the Nunavik Research Centre at Makivik, and the Labrador Institute.

In addition to the regional offices there are three main committees that make up the ReSDA management structure. ReSDA will be governed by a Network Steering Committee that holds 11 voting members (the Principal Investigator, 3 other Theme Coordinators, 2 ReSDA researchers, and 5 representatives of partner institutions from each of the regions of the Canadian North). This committee will meet annually and have at least three teleconferences every year.

The Steering Committee will be assisted by a Network Scientific Committee. This will include the Principal Investigator, 3 other Theme Coordinators, 2 elected ReSDA researchers, and 2 traditional knowledge holders appointed by partner indigenous organizations. The purpose of this group is to evaluate subprojects applications as they are submitted to the Steering Committee.

Finally, there will be five regional Partnership Advisory Committees for each of the five regions in the Canadian North. These will include regional partners, researchers, and a theme coordinator. It will serve the purpose of discussing the progress of the subprojects, evaluating the future needs of the project, and plan information dissemination activities. These committees will meet annually in person, during which time they will also hold a Community Research Workshop to gain feedback on the research findings.

Figure 1: ReSDA Management Structure



6. Funding

Funding from Partners	2011 to 2014	
<i>Partners</i>	<i>In-kind</i>	<i>Cash</i>
ArcticNet		100000
Uarctic	13,500	35000
Labrador Institute	68000	
Dept of Labrador and Aboriginal Affairs (NFLD and Labrador)	13,500 ⁱ	
Makivik Corporation	160000	80750
Nunavut Research Institute/Nunavut Arctic College	330000	
Nunavut Tunngavik Inc.	13,500	
Government of Nunavut	13,500	
Aurora Research Institute/Aurora College	85,000	
Inuvialuit Regional Corporation	13,500	150000
Government of the Northwest Territories	13,500	
Northern Research Institute/Yukon College	300500	
Yukon Government	13,500	70000
Canadian Northern Economic Development Agency	13,500	175000 ⁱⁱ
Indian and Northern Affairs Canada	13,500	42000 ⁱⁱⁱ
Arctic Co-ops	13,500	
Conference Board/ Centre for the North	6000	
Lakehead University		75,000
Total Contributions (Other)	\$1,084,500	\$727,750

7. Advisory Board

Although not part of the original proposal we will establish an Advisory Board to assist the project and offer advice. The Board will be established by April 2012 and will meet at least once a year during the national ReSDA workshops. It will be an international Board made up of five senior established academics.

ⁱ The number of in-kind days are not specifically listed in the letter from DLA. We are estimating these at 10.

ⁱⁱ The CanNor letter, and conversations with CanNor, indicates they will subsidize our national workshops as they have for SERNNNoCa. Based on past contributions we are estimating this at \$50,000 per year.

ⁱⁱⁱ The INAC letter notes they will provide us with funds for student travel through the Northern Scientific Training Program. Based on past contributions for SERNNNoCa we are estimating these at \$2,600 per student.

Appendix A: List of Subprojects

	Sustainable Regions						
	Research question/title	Description	Team members	Timeline	Methodology	Number of Grad Students	Estimated Costs*
							\$
1	What are the negative impacts of past resource development that have presented a barrier to sustainable development in Canada's North?	The purpose of this project is to provide a general historical overview of resource developments and the impacts they have had.	Coates, Morrison, Beaulieu	2012-2015	Primarily archival and secondary data analysis.	2	32,000
2	What have been the negative impacts of past mining activities that have served as barriers to sustainable development in the Canadian North?	This project will focus on the social and environmental changes that have occurred in northern regions as a result of large-scale mining activities.	Keeling, Sandlos, Simmons	2011-2014	Archival research, oral history interviews, community workshops, and community-based mapping.	2	53,00
3	What policy changes are helping resource development in the region contribute to a greater degree of sustainability?	This project will examine the different impacts that federal policies related to northern development and natural resources management have across the north, as well as how these	Abele, Irlbacher-Fox, Rodon, Schott	2011-2014	A "ground-up" analysis of policy changes, with close collaboration with northern decision-makers	3	60,000

		policies are considered in relation to northern citizens and their needs.					
4	What types of IBAs are most effective at promoting the sustainable development of resources in Northern Canada?	This project is an assessment of the impacts of mine development, with a particular focus on the influence of IBAs, within northern Aboriginal communities in a way that is both community-relevant and long-term.	Bradshaw, Noble, Krogman, Mills	2012-2015	Synthesis of existing knowledge of the community implications of mining; consultations (including interviews, focus groups, and photo voice); community survey	3	53,000
5	What is the impact of these new security concerns on attempts by the region to promote the sustainable development of its resources?	This project would examine the security impacts related to new resource developments.	Lackenbauer, Heininen,	2014-2018	Key interviews, community workshops	TBD	TBD
6	What are the appropriate models for developing commercial fisheries in the region in a sustainable manner?	This project would investigate the possibilities for sustainable development in Arctic commercial fisheries.	Shott, Felt	2014-2018	Key interviews, community workshops, literature reviews	TBD	TBD

7	Quels sont les rapports entre la structure économique régionale et les conditions économiques des ménages, tentant de répondre à des questions du genre: la stratification, la pauvreté et l'exclusion	Ce projet sera une évaluation de l'impact des inégalités associées avec l'exploitation des ressources naturelles dans l'Arctique.	Duhaime	2013-2017	Analyse des données, entrevues	TBD	TBD
	Theme Totals to 2014					10	198,000

	Sustainable Communities						
	Research question/title	Description	Team members	Timeline	Methodology	Number of Grad Students	Estimated Costs*
							\$
1	What are the impacts of resource development-related migration on Northern communities?	As an extension of recent research by the European Science Foundation's Boreas Program, the project will examine how migration related to resource development impacts communities in the North and how these impacts can be managed	Southcott, Huskey, Berman, Martin, Westerlund, Poppel	2011-2014	Examination of census data and data from "Survey of Living Conditions in the Arctic" and the "Aboriginal Peoples Survey", community interviews, Community Research Workshops	2	32,000

2	What are the impacts of commuting on communities in the North?	This project is also built on previous Boreas research. It will aim to provide a better understanding of how trends in commuting impact northern communities in Northern Canada, as well as how negative impacts can be mitigated	Storey, Stammler, Schweitzer, Heleniak, Eilmsteiner-Saxinger	2012-2015	Participatory observation, structured and unstructured interview	2	32,000
3	What are the impacts of resource development on the health and well-being of Northern communities?	This project seeks to both measure and further understand the health and well-being implications related to resource development in northern communities. It also attempts to answer the questions of how these impacts can be better measured, why they occur, and what can be done about them.	Young, Chatwood, Southcott	2012-2014	Longitudinal analysis of data from Canadian Community Health Surveys (and other relevant surveys from Statistics Canada), including a northern cohort sample and regression analysis; Community Research Workshops	2	32,000

4	How can we establish baseline data to measure the impact of resource development on a community?	Under this project, the researchers will participate in the existing international Social Indicators Project team in order to find different ways to measure the impacts of resource development in northern communities. This will include developing and testing new indicators, as well as evaluating existing ones.	IRC, Fondahl, Southcott, Nymand-Larsen, Petrov, Poppel, Schweitzer,	2011-2014	Starts with workshop in Yellowknife in Sept. 2011, data analysis	1	53,000
5	What form of community partnerships function best?	This project will first create an inventory of (non-IBA) partnership agreements in Northern Canada and the Circumpolar North. From this inventory, a number of "best cases" will be selected and analyzed. In doing so, the researchers hope to identify the key factors to success.	Adamowicz, TBD	2014-2017	Key informant interviews, community workshops, literature review	TBD	TBD

6	How can changes of quality of life brought on by resource development be measured by looking at differing resource bases.	This project will continue the work of the Circumpolar Coping Processes Project by looking at the relationship between types of resource development and quality of life in northern communities .	Aarsaether, Riabova, Petrov, Martin	2011-2015	Analysis of existing data sources and new survey projects, Community Research Workshops	3	10,000 Note-most of the funding for this project will come from the Norwegian Research Council
	Theme Totals to 2014					10	159,000

	Sustainable Cultures						
	Research question/title	Description	Team members	Timeline	Methodology	Number of Grad Students	Estimated Costs*
							\$
1	How can we mitigate the negative impacts of resource development on food security?	This project will examine the impacts of resource development on food security and investigate ways to mitigate negative impacts.	Ford, Furgal	2012-2015	Community workshops, Interviews, Participant observations	2	32,000
2	How can establish reliable baseline data to measure the impact of resource development on land-based harvesting?	The purpose of this project is to establish baseline data on the importance of the subsistence economy in northern Indigenous	Natcher, Makivik, Nunatsiavut Govt	2011-2015	Social network analysis, involving a survey through face-to-face interviews	2	10,000 Note-most funding will come from partners

		communities					
3	What are the extent of the impacts that resource development has on the subsistence economy?	Under this project, case studies will be developed in order to examine the impact that oil and gas and mining developments have on local subsistence economies	Natcher, Ford, Dowsley,	2013-2016	Analysis of data from Survey of Living Conditions in the Arctic, as well as survey through face-to-face interviews	2	60,000
4	Which aspects of the modern treaties have had the most positive impacts on promoting Aboriginal involvement in the development of the region's resources? (Martin...)	This project will examine how land claims organizations are able to contribute most effectively to the sustainable development of resources in the region.	Rodon, Martin	2012-2015	Key informant interviews, Community workshops	2	32,000
5	What type of employment programs best enhance local Aboriginal employment in the resource sector?	This project will examine the effectiveness of the various employment programs in place to increase Aboriginal employment.	Gibson, Hesseln	2014-2017	Literature review, Key informant interviews, employment data analysis	TBD	TBD

6	What are the most effective education and training techniques that encourage local Aboriginal employment in resource development?	This project will examine the effectiveness of the current educational and training programs at preparing Aboriginal youth for resource employment.	Berger, Hirshberg	2012-2015	Literature review, Key informant interviews, employment data analysis, community workshops	2	53,000
	Theme Totals to 2014					10	187,000

	Sustainable Environments						
	Research question/title	Description	Team members	Timeline	Methodology	Number of Grad Students	Estimated Costs*
							\$
1	What effect is climate change having on resource development?	This project will summarize the ability of researchers to measure impacts of climate change on resource development and the ability of communities to deal with these changes.	Ford, Furgal, Parlee, ArcticNet...	2012-2015	Literature review, key informant interviews, community workshops	1	32,000 Note – most expense will come from ArcticNet funding
2	What are the impacts of differing social impact assessment processes in the Arctic (Note – new project added in April 2011)	This project will compare the difference social impact assessment regimes that exist across the Arctic	Mathieson, Southcott, Ealat Institute, Association of World Reindeer Herders	2012-2015	Literature review, key informant interviews, community workshops	5	20,000 Note most of the funding for this project will come from the Norwegian Research Council

3	How are the shifts in resource management structures impacting local communities' ability to deal with environmental issues?	This project will examine the way that industry and gov't management structures affect the ability of communities to influence environmental issues,	Parlee, Caine, Goddard	2011	Literature review, key informant interviews, community workshops	3	60,000
4	How can we better manage conflicts between the interests of the tourism industry and resource development?	This project will examine cases where there have been conflicts between tourism and resource development.	Johnston, Lemelin	2012-2015	Literature review, key informant interviews, community workshops, case studies	2	32,000
	Theme Totals to 2014					11	144,000