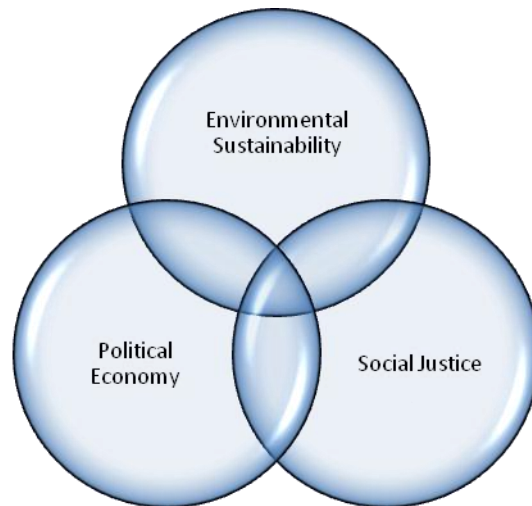


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Proposal for the Research Centre for Sustainable Communities



Prepared and Submitted by the
Department of Interdisciplinary Studies Research Committee

November 12, 2013

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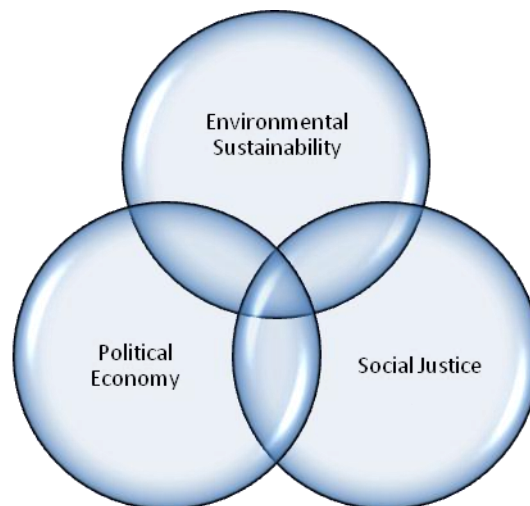
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Proposal for the Research Centre for Sustainable Communities (RCSC)

Prepared and Submitted by the Department of Interdisciplinary Studies Research Committee

1. Introduction

The Research Committee of the Department of Interdisciplinary Studies at Lakehead University-Orillia proposes to establish a Research Centre for Sustainable Communities (RCSC) focused primarily on conducting research and research-related activities. Drawing on a wide breadth of excellent research expertise available at the Orillia campus, the proposed centre will make unique and significant research contributions in a variety of areas related to sustainable communities. The core areas of research housed in the centre will include: 1) Environmental Sustainability, 2) Political Economy, and 3) Social Justice. Particular emphasis will be placed on research that considers the intersection of two or more of these three areas.



Sustainable communities are communities that are politically, environmentally and economically sustainable, as well as being committed to social justice in terms of their goals, processes and governance strategies. At a conceptual level, sustainable communities imply a holistic, integrative and dynamic view of communities, a view that recognizes and supports the principles and processes required for environmental sustainability, economic prosperity and social justice. The political factors and cultural development trends in a community are also key in creating sustainable communities.

Environmental sustainability seeks to sustain global life-support systems by securing sufficient quality of natural resources, ecosystems and species diversity in all aspects of the natural and the human or built environment. In practice, addressing environmental sustainability

implies transforming a community's overall strategies and approaches for living to maximize the likelihood that environmental and social conditions will support long-term human security, well-being and health. In this frame, the flow of both renewable and non-renewable goods and services to and from ecosystems must be sustainable. A community built on principles of environmental sustainability, in line with social and economic sustainability, strives to find a common ground in which human growth and development are not based on the overuse of environmental resources, but on the maintenance of a balance between the source/sink (input/output) environmental capacities.

Political economy refers to examining how political and economic forces taken together affect the development of government legislation and policy. There is a widespread view that political factors are crucial in determining economic outcomes. Political forces not only influence economic outcomes, but also often determine community influence based on social relations of power. Political economy explores the relationship between individuals and society and between markets and the state. It is thus concerned with how countries are managed, taking into account both political and economic factors. Political economy is the interplay between economics, law and politics, including examining ways in which the state, culture, education, the media and other institutions develop in different socioeconomic systems. In the final analysis political economy helps to interrogate and understand how public policy is created and implemented.

Social justice refers to the belief that communities should be organized to allow for and promote equality, fairness, dignity and solidarity among community members such that all members of the community experience a just and fair society, experiencing equality not just in laws or on paper but also in social outcomes. Proponents of social justice thus work toward establishing and implementing human rights law and policy, and correcting social, political, cultural and economic inequalities in the community, from local to global. Inequality might refer to differences in economic class, wealth, prosperity or status, but it can also refer to differences in access to health care, education, affordable housing, legal services, freedom of thought, political liberties, and basic human rights. Social justice researchers may therefore study barriers to access, considering potential and actual effects of various determinants such as poverty, class, gender, race, (dis)ability, sexuality, indigenous status, geographical location, immigration status, religion, mental health, drug use and other factors. The goal of social justice movements and social justice research is to contribute to the positive transformation of communities.

2. Purpose

The overarching aim of RCSC will be to conduct and promote research and research scholarship that have positive implications for the sustainability of communities. The term "communities" refers to any social grouping, which might include: animal and plant communities, online communities, university communities, localized geographical communities, and/or any other group of people with shared interests, activities or characteristics.

2.1 Objectives

The general aim of RCSC is the development of an improved understanding of factors that influence the sustainability of communities. The inherent complexity of this research objective demands an innovative approach that is comprehensive and focused. The research projects and activities undertaken as part of the proposed Research Centre will not only fall under at least one of the above-mentioned core areas (Environmental Sustainability, Political Economy or Social Justice), but will additionally focus on interdisciplinary or multidisciplinary methodologies.

As detailed below, collaboration between faculty in the humanities, social and natural sciences has already led to the development of a range of innovative projects with a combination of expertise that would be difficult to realize in less varied departments. Rather than merely providing a “home” for contrasting research projects related to community sustainability, the proposed centre will cultivate research programs which target those areas only accessible to an interdisciplinary methodological approach. Viewed through the compound lenses of the social and natural sciences, the humanities and fine arts, the complex problem of sustainable communities will get proper attention.

Thus, the objectives of RCSC can be listed as following:

- (1) To conduct research with positive implications and impacts for the sustainability of communities
- (2) To promote multidisciplinary and interdisciplinary research, particularly among the three research pillars named above
- (3) To secure external funding for the centre, and for a range of research projects on community sustainability
- (4) To organize interdisciplinary workshops, conferences, and seminars on sustainable communities
- (5) To provide research opportunities for undergraduate and graduate students, postdoctoral fellows and visiting scholars, at Lakehead University-Orillia
- (6) To facilitate research collaborations across a range of Lakehead University faculties and departments, as well as with various community organizations and private industry
- (7) To establish research collaborations between Lakehead University-Orillia and other universities both nationally and internationally
- (8) To contribute positively to the economic, social, political, environmental and cultural development and sustainability of as wide a range of communities

2.2 Complementary aspects of RCSC with other research centres

With an overarching aim of conducting and promoting research and research-related activities locally, provincially, nationally and internationally by involving students and community organizations, the Research Centre for Sustainable Communities (RCSC) will have a positive impact on the long-term cultural, political, environmental and social sustainability of a wide range of geographically dispersed communities. The proposed research centre has its unique characteristics and strengths and yet it differs in significant ways from the existing research centres such as CESME and CPSS (see Appendix A).

By engaging research related activities in political economy, social justice and environmental sustainability, this centre will engage collaboration with other centres.

2.3. Activities

RCSC will engage in the following activities on an on-going basis:

- (1) Conducting research, training students and publishing the research outcomes
- (2) Applying for external funding for the centre and its research projects
- (3) Community knowledge mobilization by engaging stakeholders
- (4) Organizing workshops, seminars and conferences
- (5) Community knowledge mobilization

2.4 Methods for Evaluation

The director(s) of the centre will conduct an annual internal evaluation to ensure that the objectives of the centre are being met. This evaluation will rely on the following information:

- (1) Amount of external research funding received
- (2) Number of journal articles, book chapters and book publications produced and disseminated
- (3) Impact factor or other qualitative evaluative markers of excellence of academic publications; reception of community publications
- (4) Number of new members active in the centre, including students, grad students, faculty members, community participants and other collaborators
- (5) Quantity and quality of workshops, seminars, and conferences
- (6) Quantity and quality of community engagement, community knowledge mobilization and other collaborative initiatives
- (7) Positive implications and impacts of research outcomes on developing and contributing to the sustainability of communities

3. Relevance

Consistent with the 2010-2013 Lakehead University Strategic Plan, the establishment of this Centre will contribute to the sustainability, comprehensiveness, research growth, and diversity of the university. The Research Centre for Sustainable Communities will strive to secure external research funding that will support research projects housed in the Centre, furthering the development of research infrastructure and partnerships at Lakehead University. The Centre will add to Lakehead University's growing research reputation, with the objective of positioning Lakehead as a national and international leader in research on sustainable communities, and as a superlative research institution more generally. This Centre and the unique, interdisciplinary research that it will produce, will add to the distinctiveness of Lakehead

University, particularly in giving character to the Orillia campus. Excellence in research will also contribute to the development and delivery of high quality academic programs aligned with the University mission and vision. The Centre will contribute to the goal of raising awareness in government and the general population about the local and regional benefits that Lakehead University provides to the local and regional economies of Ontario. Researchers and projects housed in the Centre will help Lakehead University to continue to build on existing international relationships, seeking out structured programming for student and faculty exchanges, collaborative research and outreach. Moreover the Research Centre on Sustainable Communities, by securing external research funding, will facilitate the development of graduate programs at Lakehead University Orillia where we can attract and retain graduate students with funding for Research Assistantships, which will in turn increase accessibility for graduate students. Moreover, this will enable faculty to undertake complex research projects while continuing to achieve teaching excellence. Thus, the objectives of this research centre align very well with the academic priorities listed in our Academic/Research plan for the next five years namely extended community engagements, strengthening our commitment to social justice and research on environment and natural resources.

Consistent with the 2009-2013 Orillia Campus Plan, the Research Centre for Sustainable Communities will contribute to the long-term sustainability of the Orillia Campus and Lakehead University in general. It will help to increase the visibility of Lakehead University-Orillia, and to continue to develop community relationships between Lakehead University and various communities in Simcoe County and the wider region. Furthermore, the Centre for Sustainable Communities will be a community participant responding to needs of the area. It will promote research and development initiatives in social, political, cultural and environmental sustainability, and will thereby continue to position the Lakehead University Orillia Campus as exemplary in sustainable development and environmental management.

4. Life Expectancy of the Research Centre

The proposed Centre will exist indefinitely. Issues pertaining to the sustainability of communities are not new, nor will they disappear in future years. As such, the Centre will continue to be relevant long into the future. The Centre will undergo periodic review to ensure that it continues to be feasible, relevant and able to meet the goals laid out in this proposal. As issues related to the sustainability of communities change over time, and as Lakehead University's strategic plan continues to be renewed, the objectives and activities of this Centre will change and grow to reflect these changes, ensuring that it remains not just relevant but also on the cutting edge of research.

Contributing to the review process, the Centre will produce an annual report detailing the activities and performance of the centre, including information pertaining to funding, publications, presentations and the addition of any new participating members. Efforts will be made to highlight the involvement of undergraduate and graduate students in the research conducted within the Centre. These reports will allow assessment of the achievement of the Centre's stated objectives, and cumulatively they will facilitate tracking of the Centre's performance over time.

Following Lakehead policy on the establishment of new research centres, an internal review will be conducted following the third year of the formation of the Centre. This review will involve an assessment of the performance of the centre by a review panel appointed by the Vice-President-Research. After the internal review, the members of RCSC will meet to develop strategies for the continued development and strengthening of the Centre.

5. Sample projects

To illustrate the variety of projects that the centre members will undertake and to provide insight into the interdisciplinary approaches that will be adopted, a subset of research projects proposed or currently undertaken by members of the proposed centre are described in a section *Sample projects* at the end.

6. Commitment by Lakehead University

The University commitments will not differ from current commitments to individual Lakehead faculty members. These will include the typical services provided to faculty members by the Office of Research Services, Financial Services, Human Resources, Physical Plant and other departments. If approved, the Centre will seek external funding to support a half-time Administrative Assistant starting in year 2.

7. University Facilities

Current Facilities

The Orillia Campus has two fully equipped wet labs located at the third floor in the OA building. These labs have the following analytical capacities:

1. *Microbiology research facilities*

Facilities are available for the studies of natural biofilms with special reference to bacteria, protozoa and microalgae from various aquatic habitats in Central Ontario and other important research such as microbiologically influenced corrosion of metals and bacterial indicators of water quality.

2. *Aquatic ecology*

Research facilities are available for aquatic ecology research that focuses on the role of wetlands as nutrient buffer, community dynamics of benthic invertebrates, periphyton and nutrient dynamics in the inland water systems

3. *Paleoecology (Historical Ecology)*

This laboratory facility at Orillia Campus (henceforth known as Orillia Paleo Lab) is able to process all types of sediments for micro and macro-fossil preparation (pollen, marine plankton, charcoal, testate amoebae, plant remains) used in climate change and environmental reconstruction research.

4. *Spectroscopic Capability*

The Chemistry facilities count with a Nicolet 6700 FTIR spectrometer capable of Attenuated Total Internal Reflection spectroscopy and two Thermo UV-Vis

spectrometers. The laboratory is also equipped with six fume-hoods a separate preparation room and a high quality water purification system. This equipment allows for the study of molecular interactions between cell membranes and environmentally persistent pollutants found in soil and water

5. *Water resource and Materials Science Capabilities*

The facilities at Orillia campus include techniques for water quality measurement (TSS, turbidity, colorimetric measurements of pollutants in water), bench-to-meso-scale hydraulic testing apparatus, polarized light microscopy, materials testing of liquids and solids (such as tensile strength, viscosity), and apparatus for the preparation of unique sample geometries such as thin films (spincoating, layer-by-layer deposition) and fibers (wet-spinning) under controlled environments (temperature, relative humidity). Bench-scale machining apparatus also allows for custom manufacturing of unique test apparatus in metal and plastic.

The Orillia Academic building also houses a computer lab of 25 PCs with important software including Adobe Creative Suite 6, and six MAC computers also with Adobe CS6 installed. A *Telepresence* room is under development, which can be used by the Centre to develop collaborative research projects with geographically dispersed graduate students, researchers and community members.

8. Membership

It is expected that members of the Centre will be active researchers who demonstrate scholarly excellence in fundamental and applied research of relevance to the Centre's mandate. The Centre will also facilitate the mentoring of new faculty members in order to strengthen and expand existing research programs. The proposed initial membership represents a combination of expertise at various appointment levels (1 Full professor, 2 Associate professors and 6 Assistant professors).

Regarding the different types of memberships in the Centre we propose to have "Full", "Associate", and "Student" membership categories. Full membership would require an academic appointment from Lakehead University and a research interest in a field relevant to sustainability such as but not limited to environmental protection and monitoring, theoretical and applied ecology and biology, environmental physics and chemistry, natural resource management, human geography, political economy, social justice, and health sciences. Associate membership would be reserved for academics from other institutions, researchers from government agencies or NGOs, and professionals involved in research of relevance to the Centre's mandate. Students actively working with a Full member of the Centre on a project of relevance would be considered Student members automatically. Other individuals could apply to join the Centre at the Full or Associate level. The RCSC management committee will take a final decision on the membership application on a case-by-case basis. The process would include a nomination from an existing Full member, the support of the Director, and a 2/3 support by existing Full members. The applicant's curriculum vitae would be circulated by the Director for a period of two weeks prior to the formal vote; the Director would oversee the voting process but would not cast a ballot unless there is a tie.

8.1. Full Members

Dr. Curtis A. Fogel

Affiliation: Assistant Professor, Department of Interdisciplinary Studies, Lakehead University in Orillia and Adjunct professor, Department of Sociology, Lakehead University, Thunder Bay.

Expertise: Exploratory research on crime, law, and sport; Masculinity; Gendered violence; Innovative qualitative methods.

Dr. Syed Serajul Isalm

Affiliation: Professor, Departments of Interdisciplinary Studies and Political Science, Lakehead University

Expertise: International Politics and International Law; International Terrorism; South and Southeast Asian Politics; Foreign Policies of Japan, China and India; Third World Politics; International Political Economy and environmental sustainability.

Dr. Sandra Jeppesen

Affiliation: Assistant Professor, Department of Interdisciplinary Studies, Lakehead University; Adjunct Professor, Department of English.

Expertise: Critical Discourse Analysis, Participatory Action Research, Intersectionality Theory, Cultural Studies, Alternative Media, Social Movements, Literary Theory, Anti-Oppression Analysis, Critical Race Theory, Gender and Queer Theory.

Dr. Nandakumar Kanavillil

Affiliation: Associate Professor, Departments of Interdisciplinary Studies and Biology, Lakehead University

Expertise: Aquatic ecology, periphyton community dynamics, water quality, wetland ecology, natural biofilm studies

Dr. Sreekumari Kurissery

Affiliation: Associate Professor, Departments of Interdisciplinary Studies and Biology, Lakehead University

Expertise: Microbial ecology, drinking water quality, microbial indicators, microbial corrosion, bacterial biofilms, antibacterial materials

Dr. Thamara Laredo

Affiliation: Assistant Professor, Departments of Interdisciplinary Studies and Chemistry, Lakehead University.

Expertise: Environmental applications of Analytical Chemistry, spectroscopy and electrochemistry; Food and soft material science.

Dr. Christopher Murray

Affiliation: Assistant Professor, Departments of Interdisciplinary Studies and Physics, General Science/Water Resource Science, Lakehead University and Adjunct Professor at Department of Physics, Lakehead University Thunder Bay.

Expertise: biopolymers and biomaterials, polymer surfaces and interfaces, membrane separation, hydrology, surface water and waste water contamination.

Dr. Florin Pendea

Affiliation: Associate Professor, Department of Interdisciplinary Studies, Lakehead University
Expertise: Environmental Sustainability, Environmental Change and Human Development, Climate and Landscape Change, Historical Ecology, Wetland Ecology, Northern Prehistory, Physical Geography, Geomorphology, Environmental Climatology.

Dr. Rosario Turvey

Affiliation: Assistant Professor, Department of Interdisciplinary Studies, Lakehead University
Expertise: Local economic development; planning and community sustainability in Canada; economic security; vulnerability assessment; evaluation for environmental management and development geography
Other affiliation: Centre for Global and Social Analysis, Athabasca University; Institute of Advanced Studies, United Nations University

8.2. Associate members

Yet to be admitted.

8.3. Student Members

Yet to be admitted.

9. Collaborations

We believe the nature and scope of this interdisciplinary research centre will not only strengthen existing collaborations, but lead to new academic and community partnerships in the near future. The team is actively involved in on-going collaborations with many researchers from other institutions (Table 1). We will continue to foster the existing collaborations and seek to expand them. Involvement of these individuals, and others, in the Centre (e.g., graduate student supervision) will be encouraged and consideration for Associate Membership will be explored. In addition, the Centre would seek to develop formal links with various social and political actors as well as with the local communities, which are ultimately the main beneficiaries of the Centre's research products.

Table 1. Department of Interdisciplinary Studies Research Committee members and their collaborators

| Member | Collaborator | Affiliation | Expertise |
|------------------------|---------------------------------------|--|--|
| Dr. Curtis Fogel | To be determined | | |
| Dr. Serajul Islam | Dr. Noore Alam Siddiquee | Flinders University, School of Social and Policy Studies | Social and Policy Studies |
| | Dr. Ishtiaq Hossain | International Islamic University Malaysia, Department of Political Science | Foreign policies |
| Dr. Sandra Jeppesen | Dr. Anna Kruzynski | Concordia University, School of Community and Public Affairs | Social Movements, Participatory Action Research, Feminist Theory, Community Organizing |
| | Dr. Adrienne Hurley | McGill University, East Asian Studies | East Asian Studies, Japanese literature, critical ethnic studies, anarchist feminism |
| | Dr. Alice Mattoni | European University Institute, Florence, Italy | Political sociology, political communication and media studies |
| Dr. Nanda Kanavillil | Dr. Yoshitake Takada | Fisheries Research Institute, Nigata, Japan | Aquatic ecology |
| | Dr. Peter Lee (Internal Collaborator) | Lakehead University, Thunder Bay | Wetland Ecology |
| | Dr. Asit Mazumder | University of Victoria | Water quality |
| Dr. Sree Kurissery | Dr. Yasushi Kikuchi | Osaka City University, Japan | Antibacterial materials |
| | Dr. Yoshihiro Sato | Osaka City University, Japan | Microbial Corrosion |
| | Dr. Miyano Yasuyuki | Akita University, Japan | Antibacterial materials and microbial corrosion |
| Dr. Christopher Murray | Dr. John Dutcher | University of Guelph | Polymer physics, biophysics |
| | Dr. Brent Wootton | Sir Sandford Fleming College | Alternative wastewater Treatment |
| | Dr. Greg Williams | Good Harbour Labs | Water treatment technology |
| Dr. Florin Pendea | Dr. Ezra Zubrow | SUNY | Northern Anthropology |
| | Dr. Andre Costopoulos | McGill | Computational Anthropology |
| | Dr. Vera Ponomareva | Russian Academy of Sciences | Volcanology and Seismology |
| Dr. Thamara Laredo | Dr. Alejandro Marangoni | University of Guelph | Food science, fat rheology and alternative fats development |
| | Dr. Brad Easton | UOIT | Electroanalytical Chemistry, fuel cells |
| Dr. Rosario Turvey | Dr. Paul Parker | University of Waterloo, Faculty of Environment | Sustainable communities, renewable energy & local economic development |
| | Ms. Dianne Goodwillie | International Consultant for Asia-Pacific | International development, Asia and Pacific Islands |

10. Governance

Governance will be achieved through a Management Team and an Advisory Board. The Management Team will be composed of the centre director and three associate leaders who are faculty members at Lakehead University and will represent each core areas identified for the Centre. The Department of Interdisciplinary Studies Research Committee has chosen Dr. Nanda Kanavillil as the director and Dr. Serajul Islam (political economy), Dr. Sandra Jeppeson (social justice) and Dr. Rosario Turvey (environmental sustainability) as the associate leaders. The Management Team will meet monthly, and conduct business of the Centre (i.e., create and execute work plans for the Centre, outreach initiatives etc.). Ideally both the core area leaders and the Director will participate in activities of all core areas to facilitate interaction among groups. All Lakehead faculty members, students and community members with relevant research interests will be invited to participate in the Centre.

The members of the advisory committee will include representatives from various stakeholders such as the City of Orillia, Community organizations, First Nation Communities, student representatives, members of government organizations such as Ministry of Natural Resources, Ministry of Environment and political representatives from this region. The Advisory Board will provide advice to the Management Team.

11. Employment Opportunities

The Centre will create employment opportunities based on secured grant funding as well as externally peer-reviewed funding. Faculty will initiate and seek external contracts and other grant support to develop and implement their research programs and projects. Most of the employment opportunities will be for direct and related research positions (e.g., Graduate Students, Research Assistants, Coordinators, Research Associates and Post-Doctoral Fellows). There is potential to open research opportunities for Visiting Fellows, Visiting Scholars or Adjunct Professorships, subject to the availability of funding and the University's policies and regulations on appointments for such positions. It is likely that support staff will be sought according to the Centre's ongoing commitments and periodic needs such as an Administrative Assistant or Technician. The initial staff of the Centre may include personnel currently engaged in research activities. Changes in staff complement will be contingent upon the availability of new grants or funding for duly approved projects of the Centre.

12. Personnel

Typically, personnel will be hired by and will report to the Principal Investigator of the research project they will be working on. For Post-Doctoral Fellows hired for a particular research project, the corresponding Principal Investigator and the Director(s) of the Centre will investigate the possibility of applying for an Adjunct appointment for the incumbent. In situations where individuals are hired through internal funding in a support capacity for the Centre as a whole (such as individuals filling administrative assistant positions), the hiring will be conducted according to Lakehead University policies, and the successful candidate will report to the Director(s) who will assume supervisory responsibilities.

Students will be recruited from the following academic units: Interdisciplinary Studies (BASc), Biology (BSc, MSc), Geography (BSc, BA, MES), Chemistry (BSc, MSc), Physics (BSc, MSc), Sociology (BA, MA), Political Science (BA), Women's Studies (BA), Tourism and Outdoor Recreation (BA), Kinesiology (BSc.) and Engineering (BSc, MSc).

13. Legal Implications

The Research Centre will be functioning as a sub-unit of the university. Consequently the Centre expects the inherent protection from legal liability provided by the institution and its insurance. We do not foresee any legal implications with the proposed Centre itself. However, there may be implications of the research conducted as is typical of university-based research.

Many of the projects and programs of research will involve research pertaining to human subjects, including interviews and other empirical research methods, where legal implications are always present. These implications will likely not be significantly different than if the research were to be conducted outside the auspices of the Centre. Therefore, all research conducted at the Centre will be approved by the Lakehead University Research Ethics Board, and furthermore, will adhere to the Tri-Council guidelines governing research with human participants and animals.

Additional contract work or initiatives related to commercialization of findings may also have legal implications. Such activities will take place only after consultation with the Research Office and Economic Development and Innovation Office, the relevant academic authorities, and the University Lawyer. Lastly, the Centre will follow the guidelines of the Lakehead University Faculty Association Collective Agreement, and the relevant Collective Agreements for graduate students.

14. Budget

The funds currently awarded to the members are summarized below in Table 2. The funds awarded are mainly through Lakehead University's Research Capacity Development grant (Curtis Fogel), Senate Research Committee's Research Development Fund (Sreekumari Kurissery, Thamara Laredo, Sandra Jeppesen, Rosario Turvey, Florin Pendea, Christopher Murray, Nandakumar Kanavillil, Curtis Fogel), Social Science and Humanities Research Council Insight Grants (Sandra Jeppesen), Social Science and Humanities Research Council Insight Development Grants (Curtis Fogel), Environment Canada (Nandakumar Kanavillil, Sreekumari Kurissery) and funds from private industry (Christopher Murray).

The funds mentioned above will be used to hire postdoctoral fellows, graduate students and undergraduate research assistants, whose salary is considered as the main expense of this Centre in the immediate future. Other major expenses will be the cost associated with buying instruments for the environmental science related research programs, and other consumables, which for now are projected as minimal, since the funding is not confirmed. There will be expenses for travel, conducting workshops, attending conferences and supporting visiting scholars and researchers.

Table 2. Projected expenses and income of the Department of Interdisciplinary Studies Research Committee members

| Expenditures | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Total |
|----------------------------|--------|--------|--------|--------|--------|-------|
| Yet to be determined | | | | | | |
| Income | | | | | | |
| RDF –NSERC - SRC – LU* | 17K | | | | | 17K |
| RDF – SSHRC- SRC – LU* | 5K | | | | | 5K |
| Environment Canada* | 24K | | | | | 24K |
| Private Industries/OMAFRA* | 45K | 50K | 30K | | | 125K |
| SSHRC Insight * | 115K | 106K | 93K | 97K | 86K | 497K |
| Other revenues | | | | | | |
| Total | | | | | | 669K |

*- awarded # will be updated as and when HQP become available

15. Sample projects and research areas:

1. Creating Sustainable Communities: Place-Making in Ontario's Small Urban Communities

Through place-making, can a sustainable community be formed through learning, transforming communities, changing their physical, economic and social characteristics or adopting planning strategies for regeneration and/or local economic development? Evidence shows that across the professions, there are 'skills gaps' and deficiencies for creating sustainable communities and promoting community regeneration. The dearth of skills and/or existing skills gap indicates an 'underdevelopment' of the skills and learning required to implement the sustainability agenda through place-making. To be investigated are skill sets required and in place to determine the state and transformative capacity for existing knowledge in creating sustainable communities. Though the formation of skill sets is challenging, the research will assess the knowledge and skills base for place-making for creating sustainable communities 50 small urban municipalities in Ontario. Examples of skill sets range from partnership and team building to creative thinking, environmental assessment and evaluation, conservation management, planning and managing projects, negotiation and conflict resolution, participatory management and community mobilization. The hypothesis is that: the higher the learning (skills

and knowledge sets), the higher the potential for creating sustainable communities. The project will be led by researchers and experts in sustainable communities, local economic development and ecological studies, most of whom are Faculty members from the Department of Interdisciplinary Studies, namely Dr. Rosario Turvey, Dr. Nanda Kanavillil, Dr. Christopher Murray, Dr. Thamara Laredo and Dr. Sandra Jeppesen with Research Assistants to be hired for the project.

2. Historical Nutrient Loading and Wetland Development in North-Eastern Canada

Wetlands deliver a wide range of ecosystem services that contribute to human well-being. The degradation and loss of wetlands is more rapid than that of other ecosystems. Similarly, the status of wetland species is deteriorating faster than other ecosystems. The direct drivers of degradation and loss of wetlands are anthropogenic activities such as infrastructure development, change in land use pattern, water withdrawal, eutrophication and pollution, and the introduction of invasive alien species. Among the most serious threats to wetland ecosystems, excessive nutrient loading is expected to become a growing concern to water bodies such as rivers, lakes, coastal zones, and coral reefs. Although there are a significant number of studies on the nutrient loading in wetlands little is known about its historical trends and the impacts this had on wetland development. This research program aims to reconstruct the relationship between anthropogenic nutrient loading patterns and wetland succession during the past several hundreds of years in various wetland types spread across a latitudinal gradient in North-Eastern Canada. This research will help to further our understanding on wetland ecosystem sensitivity and resilience and ultimately will provide a solid scientific basis for better policies on wetland management and conservation.

3. Indymedia 2.0: New Media Activism in the Global Digital Economy

Media activists have established autonomous media networks that provide space for innovative applications of technology with the goal of positive social transformation. This program of research is a five-year empirical study of media activist groups in North and South America, Asia and Europe, examining how they have improved levels of citizen participation in media production, increased digital literacies, and impacted everyday lives. How do media activists integrate the commitment to anti-racist, anti-colonialist, feminist and queer politics evident in their media content into the organizational structures and processes of their media groups? Global community media activism workshops will create face-to-face and digital dialogues about independent media accomplishments and challenges, mobilizing horizontal processes, technologies and organizational structures, and producing digital media outputs. Global grassroots media activism plays a crucial role in the political economy of digital media in Canada. This program of research will help develop Canada's digital advantage, expand media capacities and literacies, and extend media production access to a diversity of individuals, groups and communities.

4. Multidisciplinary Analysis of Brownfields in Orillia

Using a controversial Orillia brownfield as a point of analysis, the proposed interdisciplinary program of research explores intersections of scientific knowledge production, public perception, media representation, social policy and environmental law related to sustainability and public safety, to understand their intersecting impacts on local political decision-making. This research will identify how scientific knowledge construction is shaped by and informs political decision making through complex interplays of power, public perceptions constructed by media and other public discourses, and the translation of scientific data into lay terms. The primary objective is to develop a better understanding of competing factors that influence public policy in order to better translate scientific data into appropriate environmental policy at the municipal level. The interdisciplinary research team, comprised of researchers with expertise in Chemistry, Physics, Criminology, Human Geography and Media Studies, will use an actor network methodology to map the site location, conduct community perception surveys, analyze environmental legal implications, and trace public discourse from Environmental Risk Assessments (ERAs) and the CPU through City Council meetings and the media to compare these with public perceptions.

5. Constructing Economic Security as an Approach to Local Development and Sustained Prosperity

Economic security (ES) is one variant of non-traditional security that appeals to various actors engaged in governance, policy development/analysis, community- based development and planning at the national and local levels. This research project will propose a conceptual framework on economic security in the context of local development and prosperity; develop and select ES indicators for evaluating local development and sustained prosperity and contribute to policy research on local development and security. It will investigate the sources of security/insecurity, the knowledge and impacts of relevant policies on local economies, and the coping mechanisms and strategies for achieving economic security. It is possible to determine if a place is approaching ES as measured by the quality of life and economic indicators, the dynamics of the local economy, and the prospects for the future as envisaged by the community. The research team will be comprised of Dr. Serajul Islam and Dr. Rosario Turvey whose expertise includes international political economy/global studies to economic development and security studies. The team will be responsible for grant application, selection of case study sites, recruitment of Research Assistants and overseeing the work of post-doctoral students who will be hired to work with the team.

Appendix –A

RCSC Relationships to the Existing Research Centres at Lakehead University

This purpose/goal complements and extends the goals and objectives of similar centres of Lakehead University, namely the Centre of Excellence in Sustainable Mining and Exploration (CESME), and the Centre for Place and Sustainability Studies (CPSS). The purposes of these two research centres may have some apparent overlaps, but the RCSC is quite different in some fundamental ways. First, the CESME has an exclusively science based focus on resource extraction in Northern Ontario. It is focused on sustainable industry and economic development with respect to mining and exploration, whereas RCSC is focused on sustainable communities and ecosystems, social justice and political economies. RCSC's focus is more interdisciplinary, on the one hand, and less industry focused on the other. Second, the CPSS might appear to be more closely related to the RCSC, and yet there are some important distinctions here as well. The RCSC emphasizes community organizing from a grassroots perspective, with a focus on community initiatives and projects, which might be seen as a bottom-up approach, whereas the CPSS is focused on established institutions such as NGOs, the government, and educational institutions, which might be seen as a top-down approach. Moreover, the RCSC has a much broader understanding of communities as not being necessarily attached to a place, but might investigate identity-based or online communities that could potentially be global in scope. Furthermore, the emphasis on CPSS is on economic development and sustainability, whereas the RCSC focuses on political economies, a theoretical perspective that considers complex global power relations in order to deconstruct them. Lastly, the CPSS seems to have governance and policy development as a key focal point, whereas the RCSC favours issues of social, political and economic justice rooted in community projects and initiatives with an interdisciplinary approach encompassing strengths in sciences, social sciences, arts and the humanities. While one of these approaches is not better than the other, the outcome is that the research will explore distinct elements of sustainability, using different theoretical frameworks and methodologies. The initiatives undertaken by these two centres will likely be quite complementary, providing some opportunities for collaboration.