



420<sup>th</sup> REPORT OF THE ACADEMIC POLICY COMMITTEE TO SENATE  
on APC meetings held on 22nd April and 6<sup>th</sup> May 2010

I. TO BE APPROVED BY SENATE

(A) **NEW TEACHING PROGRAMS REQUIRING SENATE APPROVAL** (approvals of new minors and options added to existing programs and major revisions to programs are reported in Section IV.A.1.a. for information)

Faculty of Arts and Faculty of Science

B.A. & Sc.; Sustainability, Science and Society – APPENDIX A

At meetings on 22<sup>nd</sup> April and 6<sup>th</sup> May 2010, APC reviewed a proposal for an Interfaculty B.A. & Sc. program in Sustainability, Science and Society (SSS). The proposed program, based on a partnership between the Department of Geography and the McGill School of Environment, would focus on what is believed to be the major challenge of the 21<sup>st</sup> century, i.e. “to improve human well-being while maintaining the Earth’s life support systems” in the face of a projected global population in excess of nine billion by the year 2050. The aim of the program is to provide students with the knowledge and skills to “understand and address the challenge in its multiple dimensions – scientific-technological, socio-economic, political-institutional, ethical.” The program’s structure rests on three pillars: 1) Science and Technology, 2) Economics, Policy, and Governance, and 3) Ethics, Equity, and Justice. The proposed program has been carefully structured to provide the necessary depth and breadth; the courses form a broad interdisciplinary curriculum that will help achieve the program’s objective of providing students the substantive knowledge and analytical skills required to understand and address the sustainability challenge in its multiple dimensions effectively. The program has generated much interest among students. Submission to CREPUQ’s *Commission d’évaluation des projets de programmes (CEP)* for evaluation and to the Ministry of Education, Leisure and Sport (MELS) for approval is not required.

APC therefore recommends that Senate approve the following resolution:

*Be it resolved that Senate approve the proposed “B.A. & Sc.; Sustainability, Science and Society” program.*

(B) **ACADEMIC PERFORMANCE ISSUES / POLICIES / GOVERNANCE/AWARDS**

Proposed Pilot for extended course evaluation dates – APPENDIX B

On 6<sup>th</sup> May 2010, APC reviewed a proposal, presented by the APC Subcommittee on Teaching and Learning (SCTL), to undertake a pilot for extended course evaluation dates. Whereas McGill’s Course Evaluation Policy, approved by Senate on 23<sup>rd</sup> January 2008, stipulates that “*Evaluations in regularly scheduled courses shall normally be completed before the start of the examination period. In some circumstances, the Faculty may adjust the evaluation dates. In all cases, course evaluations shall be completed before grades are submitted.*” (article 15), it has been suggested that examinations and major assignments are an integral part of a course and its associated pedagogical strategies and therefore students should be able to include those in their evaluation. The proposed pilot would allow course evaluations to be completed until the end of the examination period for the Fall 2010 term in a number of interested units.

APC therefore recommends that Senate approve the following resolution:

*Be it resolved that a pilot project that would allow the course evaluations to be completed until the end of the examination period be undertaken for the Fall 2010 term with interested units (Faculty of Religious Studies; Department of Integrated Studies in Education and School of Information Studies in the Faculty of Education; Department of Animal Science, School of Dietetics and Human Nutrition, Department of Natural Resource Sciences and Institute of Parasitology in the Faculty of Agricultural and Environmental Sciences).*

**(C) CREATION OF NEW UNITS / NAME CHANGES / REPORTING CHANGES**

## 1) Faculty of Agricultural and Environmental Sciences

McGill Institute of Global Food Security / *Institut de sécurité alimentaire mondiale de McGill* – APPENDIX C

At a meeting on 22<sup>nd</sup> April 2010, APC reviewed a proposal for the creation of a McGill Institute of Global Food Security. The Faculty of Agricultural and Environmental Sciences is well positioned to house an institute that will draw on the broad interdisciplinary strength and international experience of McGill's two campuses, bringing together McGill expertise on issues of food security. The Institute also builds on the resounding success of the 2008 *McGill Conference on Global Food Security* and of the 2009 conference *Impacts of the Global Financial Crisis on Food Security*. The training, research and policy development carried out by the Institute will be framed within an agenda that aims to help protect and improve people's health, well-being and livelihoods.

APC therefore recommends that Senate approve the following resolution:

*Be it resolved that Senate approve the proposal for the creation of a McGill Institute of Global Food Security / Institut de sécurité alimentaire mondiale de McGill and so recommend to the Board of Governors.*

**(D) CHANGES IN DEGREE DESIGNATION**

None.

**II. PRESENTED TO SENATE FOR DISCUSSION**

None.

**III. APPROVED IN THE NAME OF SENATE****(A) DEFINITIONS**

None.

**(B) STUDENT EXCHANGE AGREEMENTS / CONTRACTS / INTERUNIVERSITY PARTNERSHIPS (approved by APC)**

Faculty of Medicine – School of Physical and Occupational Therapy

Proposal to extend McGill's Physical Therapy program to the Université du Québec à Chicoutimi

At a meeting on 6<sup>th</sup> May 2010, APC reviewed and granted provisional approval to a proposal whereby McGill's School of Physical and Occupational Therapy would offer McGill's Physical Therapy program, i.e. *B.Sc. (Rehabilitation Science); Physical Therapy and M.Sc., Applied, in Physical Therapy*, on the campus of the Université du Québec à Chicoutimi (UQAC). Quebec is facing a shortage of health professionals that is particularly striking in rehabilitation and a lack of healthcare professionals in regions distant from large metropolitan areas. Training healthcare professionals in rural regions has become a priority across North America. While UQAC does not have the necessary resources to develop or offer its own program in Physical Therapy, MELS supports the proposition that a partnership be developed with McGill University whereby McGill would offer its Physical Therapy program on the UQAC campus according to the "*par extension*" model. A *protocole d'entente* will define the management modalities, the sharing of resources, methods of student evaluation, the coordination required in order to assure a smooth daily operation. Admissions, evaluations and overall quality control are carried out under the auspices of McGill. McGill retains full responsibility for the quality of its program and degree. According to the feasibility study that has been completed, UQAC's Science Faculty has the required competencies to offer the first two years of the program as currently offered at McGill. A funding proposal detailing plans for implementation and specifying both parties' respective obligations will be submitted to MELS. McGill's program in Physiotherapy is very attractive to UQAC: it will be the first Quebec program to be accredited by the Canadian accreditation body; it also allows mature students and holders of baccalaureate degrees from other disciplines to enter the clinical training stream without starting from the first year of the Bachelor's program. McGill University reaps significant benefits in being seen to respond to the healthcare needs of Quebec. This project allows the School to respond to the ministerial request that the number of graduates in Physiotherapy be increased.

**(C) OTHER ISSUES**

None.

#### IV. FOR THE INFORMATION OF SENATE

##### (A) APPROVAL OF COURSES AND TEACHING PROGRAMS

###### 1. Programs

###### a) APC approvals (new options/concentrations added to existing programs and major revisions to programs)

###### i. New concentrations/options within existing programs (approved by APC on 22<sup>nd</sup> April 2010)

Ph.D.; Religious Studies; Gender and Women's Studies

###### ii. Major revisions of existing programs

None.

###### b) APC Subcommittee on Courses and Teaching Programs (SCTP) approvals

Summary reports from the APC Subcommittee on Courses and Teaching Programs (SCTP) to APC are posted on the non-restricted section of the APC website <http://www.mcgill.ca/apc/sctpreports/>.

SCTP approved the following on 15<sup>th</sup> April 2010 (except where indicated)

###### i. Moderate and Minor Program Revisions:

###### Faculty of Arts

- B.A.; Music; Minor Concentration (18 cr.)
- B.A.; Music; Major Concentration (36 cr.)
- Ph.D.; Linguistics
- B.A.; Sexual Diversity Studies; Minor Concentration (18 cr.)
- B.A.; Women's Studies; Minor Concentration (18 cr.)
- B.A.; Women's Studies; Major Concentration (36 cr.)
- B.A.; Women's Studies; Honours (57 cr.)
- B.A.; Women's Studies Component; Joint Honours (36 cr.)

###### Faculty of Engineering

Approved by SCTP on 29<sup>th</sup> April 2010:

- Ph.D.; Mechanical Engineering

###### Schulich School of Music

- Ph.D.; Music

###### Faculty of Science

- B.Sc.; Education for Science Students; Minor (18 cr.)
- B.Sc.; Applied Mathematics; Honours (60 cr.)

###### ii. Program Retirements:

###### Faculty of Arts

- Ph.D.; Political Science; Neotropical environment

###### 2. Courses

###### a) New Courses: 13

Faculty of Arts: 6  
 Faculty of Education: 1  
 Faculty of Engineering: 1  
 Faculty of Law: 1  
 Schulich School of Music: 1  
 Faculty of Science: 2

###### b) Course Revisions: 62

Faculty of Arts: 24  
 Faculty of Education: 6

Faculty of Engineering: 19  
Faculty of Law: 2  
Desautels Faculty of Management: 2  
Faculty of Medicine: 4  
Faculty of Science: 5

c) Course Retirements: 7

Faculty of Arts: 4  
Faculty of Engineering: 1  
Faculty of Science: 2

(B) Other

None.

*Compiled by Helen M.C. Richard, 2010-05-07*



(07/2004)

<p><b>1.0 Degree Title</b> Please specify the two degrees for concurrent degree programs</p> <p>B.A &amp; Sc.</p>	<p><b>2.0 Administering Faculty/Unit</b></p> <p>Science</p>
<p><b>1.1 Major (Legacy= Subject)(30-char. max.)</b></p> <p>Sustainability, Science and Society</p>	<p><b>Offering Faculty/Department</b></p> <p>Arts &amp; Science/Geography/McGill School of Environment</p>
<p><b>1.2 Concentration (Legacy = Concentration/Option)</b> If applicable to Majors only (30 char. max.)</p>	<p><b>3.0 Effective Term of Implementation</b> (Ex. Sept. 2004 = 200409) Term</p> <p>Fall 2010</p>
<p><b>1.3 Minor (with Concentration, if Applicable) (30 char. max.)</b></p>	

**4.0 Rationale for new proposal**

Students are increasingly interested in an inter-disciplinary education that provides an understanding of the challenges associated with global environmental change, the analytical skills to critically test scenarios and evaluate alternatives, and the ability to develop effective policies for achieving a transition to sustainability. This program, which is designed to achieve these goals, will be offered in close partnership between Geography and the McGill School of Environment, and will involve the other faculties at McGill. We hope that the program will put McGill at the forefront of teaching in sustainability.

**5.0 Program Information**  
Please check appropriate box(es)

<p><b>5.1 Program Type</b></p> <p><input checked="" type="checkbox"/> Bachelor's Program</p> <p><input type="checkbox"/> Master's</p> <p><input type="checkbox"/> M.Sc. (Applied) Program</p> <p><input type="checkbox"/> Dual Degree/Concurrent Program</p> <p><input type="checkbox"/> Certificate</p> <p><input type="checkbox"/> Diploma</p> <p><input type="checkbox"/> Graduate Certificate</p> <p><input type="checkbox"/> Graduate Diploma</p> <p><input type="checkbox"/> Ph.D. Program</p> <p><input type="checkbox"/> Doctorate Program (Other than Ph.D.)</p> <p><input type="checkbox"/> Private Program</p> <p><input type="checkbox"/> Off-Campus Program</p> <p><input type="checkbox"/> Distance Education Program (By Correspondence)</p> <p><input type="checkbox"/> Other (Please specify)</p>	<p><b>5.2 Category</b></p> <p><input type="checkbox"/> Faculty Program (FP)</p> <p><input type="checkbox"/> Major</p> <p><input type="checkbox"/> Joint Major</p> <p><input type="checkbox"/> Major Concentration (CON)</p> <p><input type="checkbox"/> Minor</p> <p><input type="checkbox"/> Minor Concentration (CON)</p> <p><input type="checkbox"/> Honours (HON)</p> <p><input type="checkbox"/> Joint Honours Component (HC)</p> <p><input type="checkbox"/> Internship/Co-op</p> <p><input type="checkbox"/> Thesis (T)</p> <p><input type="checkbox"/> Non-Thesis (N)</p> <p><input checked="" type="checkbox"/> Other</p> <p>Please specify</p> <p>Interfaculty Program</p>	<p><b>5.3 Level</b></p> <p><input checked="" type="checkbox"/> Undergraduate</p> <p><input type="checkbox"/> Dentistry/Law/Medicine</p> <p><input type="checkbox"/> Continuing Ed (Non-Credit)</p> <p><input type="checkbox"/> Collegial</p> <p><input type="checkbox"/> Masters &amp; Grad Dips &amp; Certs</p> <p><input type="checkbox"/> Doctorate</p> <p><input type="checkbox"/> Post-Graduate Medicine/Dentistry</p> <p><input type="checkbox"/> Graduate Qualifying</p> <p><input type="checkbox"/> Postdoctoral Fellows</p>
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**6.0 Total Credits**

54

**7.0 Consultation with Related Units**

Financial Consult  Yes  No

Attach list of consultations.

\*: See last page of proposal for list of consultations provided. P1-1

(1)

AT-09-48 to 51

## Proposal for a BASc Interfaculty program in Sustainability, Science and Society

At the dawn of the new millennium, we stand at a critical juncture in human history. While the several-fold increase in economic activity over the last century has brought prosperity to many, it has been at tremendous ecological and social cost, and today, we are faced with the prospect of several inter-locking crises. Water is essential to life, yet freshwater ecosystems the world over are greatly stressed; water pollution is widespread and more than a billion people lack access to clean water. Despite the vast strides made in food production, about one in seven people globally go hungry every day. Meanwhile, per-capita grain production is declining and grain yield growth is slowing. Current rates of species extinction greatly exceed background rates, and there is increasing concern about the potential loss in ecosystem services accompanying this loss in biodiversity. The rapid growth in energy consumption is causing a wide range of adverse impacts, including steadily increasing atmospheric carbon dioxide levels, with serious long-term consequences for water regimes and food security. Meanwhile, the global population is not expected to stabilize before 2050, when it is projected to exceed nine billion. The bulk of the projected population growth is expected to occur in those regions where nutritional deficiency and poverty levels are the highest, agricultural systems and groundwater resources are the most stressed, and climate change impacts will likely exacerbate those stresses.

In the face of these multiple threats, the grand challenge of the 21st century is Sustainable Well-being -- in other words, how we can provide for a world population that could stabilize at 9-10 billion, and alleviate mass poverty, while also maintaining the Earth's life support systems. To address these challenges, a new scientific field, Sustainability Science, is emerging (see references) integrating the most recent *natural and social science* understanding to formulate and test scenarios of sustainable well-being, and in particular a *transition to sustainability*. It lends itself ideally to the formation of a BASc interfaculty program at McGill.

The proposed BASc Program in *Sustainability, Science and Society*, offered in close partnership between Geography and the McGill School of Environment, and involving other departments at McGill, will provide the inter-disciplinary and integrative knowledge and skills required to understand and address the sustainability challenge in its multiple dimensions – scientific-technological, socio-economic, political-institutional, ethical, and human behavioural. The program is built upon three pillars: 1) Science and Technology, to provide an in-depth understanding of the underpinnings of the problems of concern; 2) Economics, Policy, and Governance, to understand how we can make the Sustainability transition; and 3) Ethics, Equity, and Justice, to discuss why we need change, and the issues of equity and justice associated with taking action. We believe that the program will put McGill at the forefront of teaching in sustainability. **References:** R. W. Kates et al. (2001), *Science* 292, 641; W. C. Clark (2007), *PNAS*, 104, 1737.

### Other similar programs in North America

- Environment, Sustainability and Society, Dalhousie (see <http://dalnews.dal.ca/2009/09/16/ess.html>)
- Sustainable Development Research Institute, University of British Columbia
- Sustainability Science Program at Harvard's Center for International Development
- School of Sustainability, Arizona State University
- Others (see listing at: <http://sustsci.aaas.org/program.html>)

**Research journals addressing Sustainability Science:** The 'Sustainability Science' special section of the Proceedings of the National Academy of Sciences; *Sustainability Science*; *Sustainability: Science, Practice and Policy* (SSPP); *Ecology and Society*; *Environment, Development and Sustainability*, etc.

### In the News Recently

- Article in *Nature*: Gewin, V. (2008), *Sustenance for Sustainability*, *Nature*, 455, 1276-1276. (<http://www.nature.com/naturejobs/2008/081030/full/nj7217-1276b.html>).
  - Fellowships in Sustainability Science, Center for International Development, Harvard University

8.0 Program Description (Maximum 150 words)

The grand challenge of the 21st century is Sustainable Well-being, that is, to improve human well being while maintaining the Earth's life support systems. This B.A. & Sc. Program provides the inter-disciplinary and integrative knowledge and skills required to effectively understand and address this challenge in its multiple dimensions – scientific-technological, socio-economic, political-institutional, ethical, and human behavioural – and to chart a transition to sustainability. It is built upon three pillars: 1) Science and Technology, to provide an in-depth understanding of the underpinnings of the problems of concern along these dimensions; 2) Economics, Policy, and Governance, to understand how we can make the Sustainability transition; and 3) Ethics, Equity, and Justice, to discuss why we need change, and the issues of equity and justice associated with taking action. This Program is a partnership between Geography and the MSE and will be administered through Geography.

9.0 List of proposed program for the New Program/Major or Minor/Concentration.

If new concentration (option) of existing Major/Minor (program), please attach a program layout (list of all courses) of existing Major/Minor.

Proposed program (list courses as follows: Subj Code/Crse Num, Title, Credit weight under the headings of: Required Courses, Complementary Courses, Elective Courses)

REQUIRED COURSES (27 credits)

- a) Foundations of Sustainability  
ENVR 201 (3) Society, Environment, and Sustainability (course revision form attached)  
GEOG 360 (3) Analyzing Sustainability (course proposal attached)  
GEOG 460 (3) Research in Sustainability (course proposal attached)
- b) Introduction to biophysical, societal, cultural, institutional and ethical dimensions of sustainability  
ENVR 200 (3) Global Environment  
ENVR 202 (3) The Evolving Earth  
ENVR 203 (3) Knowledge, Ethics and Environment  
GEOG 203 (3) Environmental Systems  
GEOG 310 (3) Development and Livelihoods  
MGPO 440 (3) Strategies for Sustainability

COMPLEMENTARY COURSES (27 credits)

- c) 3 credits of Statistics from the following:  
AEMA 310 (3) Statistical methods  
BIOL 373 (3) Biometry  
GEOG 202 (3) Statistics and Spatial Analysis  
PSYC 204 (3) Intro to Psychological Statistics
- d) 3 credits of System Modelling tools from the following:  
ESYS 301 (3) (Winter) Earth System Modelling  
or GEOG 501 (3) (Fall) Modelling Environmental Systems
- e) 3 credits of Economics from the following:  
ECON 225 (3) Economics of the Environment  
ECON 326 (3) Ecological Economics  
AGEC 333 (3) Resource Economics
- f) 18 additional credits of complementary courses chosen from 3 areas listed below  
Students must choose at least two courses from each area, and in total complete at least 9 credits at 300 or higher level.

Attach extra page(s) as needed

New Program/Major or Minor/ Concentration Proposal Form P1-2

**f) 18 additional credits of complementary courses chosen from 3 areas listed below**

Students must choose at least two courses from each area, and in total complete at least 9 credits at 300 or higher level.

<b>AREA 1: Methods: Observation, Analysis, Modelling and Management</b>	<b>AREA 2: Society, Economics, Policy, Ethics and Equity</b>	<b>AREA 3: Sustainability and Biophysical processes</b>
<p>AGRI 435 (3) Soil and Water Quality management (L, W)                      ENVR 544 (3) Environmental measurement and modelling                      ESYS 500 (3) Earth System Applications (C)                      GEOG 201 (3) Introductory Geo-information Science                      GEOG 302 (3) Environmental Management 1                      GEOG 306 (3) Raster GIS                      GEOG 308 (3) Principles of Remote Sensing                      GEOG 351 (3) Quantitative Methods                      GEOG 404 (3) Environmental Management 2                      GEOG 509 (3) Qualitative Methods in Geography                      GEOG 523 (3) Global Ecosystems and Climate (C, L)                      NRSC 437 (3) Assessing Environmental Impact                      URBP 506 (3) Environmental Policy and Planning</p>	<p><i>Take at least 1 course from each subsection below</i>  <b>2A: Society, Economics, and Policy</b>                      AGEC 200 (3) Principles of Microeconomics                      OR ECON 208 (3) Microeconomic Analysis and Applications                      AGEC 201 (3) Principles of Macroeconomics                      OR ECON 209 (3) Macroeconomic Analysis and Applications                      AGEC 430 (3) Agriculture, Food and Resource Policy (L)                      AGEC 442 (3) Intro. to Agriculture and Development (L)                      ANTH 206 (3) Environment and Culture                      ANTH 212 (3) Anthropology of Development (D)                      ANTH 339 (3) Ecological Anthropology                      ECON 230 D1/D2 (6) Microeconomic Theory                      ECON 347 (3) Economics of Climate Change                      ECON 405 (3) Natural Resource Economics                      ENVR 519 (3) Global Environmental Politics                      GEOG 210 (3) Global Places and Peoples                      GEOG 216 (3) Geography and the World's Economy                      GEOG 303 (3) Health Geography (H)                      GEOG 316 (3) Political Geography                      GEOG 408 (3) Geog of Development (D)                      GEOG 410 (3) Geog of Underdevelopment (D)                      GEOG 508 (3) Resources, People and Power                      HIST 292 (3) History and the Environment                      MGCR 360 (3) Social Context of Business                      MGPO 475 (3) Strategies for Developing Countries                      MGPO 567 Business in Society                      NRSC 540 (3) Socio-cultural Issues in Water (W)                      URBP 530 (3) Urban Environmental Planning</p> <p><b>2B: Ethics and Equity</b>                      ENVR 400 (3) Environmental Thought                      GEOG 382 (3) Principles of Earth Citizenship                      MGPO 450 (3) Ethics in Management</p>	<p>ATOC 214 (3) Introduction: Physics of the Atmosphere (C)                      ATOC 215 (3) Oceans Weather and Climate (C)                      BIOL 540 (3) OR ENVR 540 (3): Ecology of Species Invasions (B)                      BIOL 308 (3) Ecological Dynamics (B, L)                      BIOL 310 (3) Large Scale Ecology (B, L)                      BREE 217 (3) Hydrology and Water Resources (W)                      OR GEOG 322 (3) Environmental Hydrology (W)                      ESYS 200 (3) Earth System Processes (C)                      ESYS 300 (3) Investigating the Earth System (C)                      GEOG 221 (3) Environment and Health (H)                      GEOG 305 (3) Soils and Environment                      GEOG 372 (3) Running Water Environments (W)                      GEOG 403 (3) Global Health and Environmental Change (H)                      GEOG 470 (3) Wetlands (W)                      GEOG 530 (3) Global Land and Water Resources (L, W)                      GEOG 555 (3) Ecological Restoration (B)                      NRSC 333 (3) Physical and Biological Aspects of Pollution                      ENVB 410 (3) Ecosystem Ecology (B, L)</p>

Students who wish to explore the following topics in more depth may select courses flagged with the following symbols in parentheses:

- 1) Climate Change (C)
- 2) Land Resources: Food, Forests (L)
- 3) Water Resources (W)
- 4) Biodiversity (B)
- 5) Human Health (H)
- 6) Development (D).

(F)



*BASC Interfaculty in Sustainability,  
 Science + Society*

AC-09-51

10.0 Approvals			
Routing Sequence	Name	Signature	Date
Department <i>GEOS</i>	<i>Tim Moore</i>	<i>[Signature]</i>	<i>Feb 9/10</i>
<i>MSE</i>	<i>Marilyn Scott</i>	<i>Marilyn Scott</i>	<i>Feb 9/10</i>
Council/Asst. Committee	<i>Susan Shaape</i>	<i>[Signature]</i>	<i>Jan 18/10</i>
Faculty 1 <i>ARTS</i>	<i>Tonia D'Amico</i>	<i>[Signature]</i>	<i>Feb 9/10</i>
Faculty 2 <i>SCI</i>	<b>SCTP</b>		
Faculty 3	<b>APPROVED</b>		
SCTP			<i>FEB. 18/10</i>
GS			
APPC	<i>Helen M.C. RICHARD</i>	<i>Helen M.C. Richard</i>	<i>6th May 2010</i>
Senate			

  

Submitted by		To be completed by ARR:	
Name	<input type="text"/>	<input type="text"/>	
Phone	<input type="text"/>	CIP Code	
Email	<input type="text"/>	<input type="text"/>	
Submission Date	<input type="text"/>		

Consultations provided to SCTP from the following:  
 Department of Atmospheric and Oceanic Sciences  
 Department of Chemistry  
 Department of Earth and Planetary Sciences  
 Department of Economics  
 Faculty of Engineering  
 School of Environment  
 Desautels Faculty of Management  
 Department of Natural Resource Sciences

*Additional consultations  
 provided on APC's request:  
 - Department of Philosophy  
 - Faculty of Religious Studies*

*HRCR 6th May 2010*

Cindy Smith  
 SCTP Secretary, April 15, 2010



**McGill**

Teaching and Learning Services  
 Telephone: 398-6648  
 Fax: 398-8465  
[tls@mcgill.ca](mailto:tls@mcgill.ca)

10-APC-05-65a

**To:** APC  
**From:** Laura Winer, Associate Director, TLS  
**Subject:** Pilot for extended course evaluation dates  
**Date:** 6 May 2010  
**For:**  Information  Discussion  Decision

**Issue:** The issue concerns changing the end date of the course evaluation period, which is currently the last day before the exam period begins. Several units have expressed an interest in extending course evaluations through to the end of the exam period. This would achieve two primary goals:

- allow all evaluation methods, including final exams, to be considered as part of the teaching experience, and not separating final exams from the teaching and learning experience that is being evaluated;
- allow students to complete evaluations at a time when they are less pressured by impending end-of-term deadlines.

The current policy has two statements concerning the timing of evaluations:

15. Evaluations in regularly scheduled courses shall normally be completed before the start of the examination period. In some circumstances, the Faculty may adjust the evaluation dates. In all cases, course evaluations shall be completed before grades are submitted.

16. Results shall not be disclosed to the instructor before final grades in each course taught by the instructor have been submitted and processed.

If we were to change the dates of the course evaluation period, there is one aspect which would not be possible to respect, namely the 3<sup>rd</sup> sentence in point 15: "In all cases, course evaluations shall be completed before grades are submitted." This was included because of concerns that students might adjust their evaluations to punish or reward instructors for low or high grades.

**Background:** The current initiative was prompted by a request from the Faculty of Religious Studies that articulated the following points: examinations and major assignments are an integral part of a course and its associated pedagogical strategies and therefore students should be able to include those in their evaluation. Upon consultation with other faculties, several departments from Education and AES also indicated strong interest in participating.

In investigating this possibility, we looked at the research literature on this topic. Before the advent of online systems, collecting data after exams was difficult to

	<p>implement for logistical reasons. This certainly is one reason why collecting evaluations after students have received their grades has not been explored much in the literature. However, an article that is still being cited more than 30 years after publication, Frey (1976), found strong evidence that “instructional ratings collected before the final exam are not significantly different from instructional ratings collected after the students have received their final grade for the course” (pp . 333, 335).</p> <p>Recent literature on course evaluation results indicates that the correlation between good grades and high ratings comes from the fact that “good teaching...leads to better learning, and this in turn leads to both good grades and high course ratings.” (Remedios &amp; Lieberman, 2008, p.92). Ory (2001), after an extensive literature review, concludes that “students who feel they have learned a lot expect high grades for their efforts and in turn rate their instructors high for good teaching.”</p>
<b>Motion or Resolution for approval:</b>	Be it resolved that a pilot project that would allow the course evaluations to be completed until the end of the examination period be undertaken for the Fall 2010 term with interested units (Faculty of Religious Studies; Department of Integrated Studies in Education and School of Information Studies in the Faculty of Education; Department of Animal Science, School of Dietetics and Human Nutrition, Department of Natural Resource Sciences and Institute of Parasitology in the Faculty of Agricultural and Environmental Sciences).
<b>Rationale:</b>	When the current policy on course evaluations was approved by Senate (23 <sup>rd</sup> January 2008), the question of timing was discussed extensively, and the word “normally” was intentionally included in point 15 to offer the possibility of extending evaluations into the exam period. The departments are all participating voluntarily. Instructors retain the option of not submitting their grades on Minerva until after the evaluation period closes if they wish to ensure that students have not yet seen their grades.
<b>Recommendation:</b>	A pilot project to allow the course evaluations to be completed until the end of the examination period should be undertaken for the Fall 2010 term with interested units.
<b>Prior consultations &amp; approvals:</b>	<p>The pilot project was approved by:</p> <ul style="list-style-type: none"> <li>• STL on 27 April 2010;</li> <li>• the Deans of Religious Studies, Education and Agricultural and Environmental Sciences, the Chairs of the departments and the faculty of the participating units;</li> <li>• the Course Evaluation Advisory Group;</li> <li>• the technical support team in ISR for its feasibility from a technical perspective.</li> </ul>
<b>Next steps:</b>	Plan, implement and evaluate pilot project for participating units in fall 2010. A report will be made to APC in Winter 2011 reporting on faculty, student and administrator experiences with the extended dates.
<b>Appendices:</b>	Appendix 1: Proposed participants and procedure for Pilot for extended course evaluation dates

## **Appendix 1: Proposed participants and procedure for pilot for extended course evaluation dates**

### **Academic Units Participating in Pilot**

Based on course data from Fall 2009, approximately 227 courses (out of a total of 2,453) would be involved from the following units:

- Faculty of Agricultural and Environmental Sciences:
  - Animal Science (n=14)
  - Dietetics and Human Nutrition (n=24)
  - Natural Resources (n=21)
  - Parasitology (n=7)
- Faculty of Education:
  - DISE (n=114)
  - SIS (n=19)
- Faculty of Religious Studies (n=28)

### **Proposed procedure**

- Dates:
  - The course evaluations would be available from Monday, November, 22 to Tuesday, December 21, 2010.
  - As a back-up plan, upon a request from the Dean, the evaluations would be reopened in January 2011 to obtain additional responses from students.
- Additional questions: The following two questions would be added to all questionnaires in participating courses:
  1. Have you completed all of the work (including the final examination, if any) for this course?
  2. Have you received your final mark for this course?
- Grade submission: Instructors may submit their grades at any time once the system is open. Once grades are submitted and rolled, students will have access, and this may, in fact, be before they have completed their course evaluation. However, instructors may either choose not to submit their grades or not have finished their grading before the end of the examination period and so not all students will know their official final result.
- Access to results: Regardless of when the instructor submits his or her grades, he or she will not have access to the course evaluation results until the evaluation period has ended.

## A Proposal for the Creation of an Interdisciplinary Teaching and Research Institute on Global Food Security

- Name:** McGill Institute of Global Food Security/Institut de sécurité alimentaire mondiale de McGill
- Lead Faculty:** Agricultural and Environmental Sciences
- Proposal Submitted by:** Chandra Madramootoo, Dean, Faculty of Agricultural and Environmental Sciences
- Location:** The Institute will be administratively housed in the Faculty of Agricultural and Environmental Sciences, Macdonald Campus
- Consultations:** The proposal was sent to the Faculties of Arts, Law, Management, Science, and McGill School of Environment for consultation in April 2009. Comments were received and these have been fully addressed in the current proposal. Some letters of approval were received.
- Faculty Approval:** Approved by the Faculty Council of Agricultural and Environmental Sciences on April 17, 2009

**Context:**

Soaring food prices in 2007 and 2008 provoked social unrest in countries around the world and threatened the political and economic stability of poor nations. Rising prices pushed up the number of undernourished people in the world from more than 850 million in 2005 to 925 million in 2008. The recent world economic crisis has worsened global poverty and it is now estimated that over one billion people in the world do not earn enough money to allow them to have an adequate diet. Hunger and poverty are inextricably linked. Countries with the highest proportion of hungry people are predominantly found in Sub-Saharan Africa, parts of Asia, and Central and South America, where over 25% of their populations are undernourished. High household spending on food (over 70%) in these regions leads to food insecurity. Economic and health impacts are enormous as people are forced to sell assets, cut back on nutrition and health care, and take children out of school. There are also tremendous environmental impacts, such as the clearing of forested lands, cultivation of marginal hillside lands, overgrazing, soil degradation, soil erosion, loss of biodiversity, groundwater depletion, and contamination of rivers and lakes.

National and international investments in agriculture and food production have declined since the 1980s. Since 1979, funding of Official Development Assistance (ODA) to agriculture declined from 18% to 3.5% of the total ODA in 2004 from the OECD countries. It also declined in absolute terms, from a high of about \$8 billion (2004 USD) in 1984 to \$3.4 billion in 2004. Declining investments reduced efforts to build technical capacity in the agricultural sector. Research, development and transfer of new technologies to producers have slowed down and the yield gap between experimental farms and national averages is increasing in many developing countries.

Alarmed by the state of the world food supply, and dwindling investments in agriculture, particularly in research and capacity building, the Faculty of Agricultural and Environmental Sciences (FAES) hosted the *McGill Conference on Global Food Security* in September 2008 to find long and short term solutions to the crisis. The conference was attended by over 400 people from around the world, and included government policy makers, representatives of international agencies, international scholars, NGOs, the private sector, McGill and other Montreal area university staff and students. The resounding success of the conference resulted in unanimous agreement from participants that McGill University should build on the momentum generated and take the intellectual leadership of a Global Food Security Institute, with the objective of analyzing the policy and research challenges which will improve world food production and access to food, especially in the developing world. No other Canadian University or organization has taken similar intellectual leadership on the topic. Staff from other Faculties who played a key role in the development, delivery and success of the Conference, particularly with the public policy elements included Professors John Galaty and Phil Oxhorn (Arts), and Dean Nicholas Kasirer (Law). The Conference was co-chaired by the Rt. Hon Joe Clark and Chancellor Richard Pound, both of whom actively contributed to its success.

A second and equally successful conference, *Impacts of the Global Financial Crisis on Food Security*, was held in October 2009. The conference, co-chaired by Heather Munro-Blum, Principal and Vice-Chancellor of McGill University and Marilyn Knox, President of Nestlé Nutrition Canada, examined the recent responses of regional and international agencies to the challenges of food insecurity, explored investment priorities for development of the agricultural sector and studied the impacts of markets and trade, biofuels and climate change on food security. Once again, the expertise of speakers from international organizations, NGOs, policy makers and specialists from around the world contributed to enlightened discussions and deeper understanding of the complex issues of global food security.

Although the Food Price Index has declined in international markets, domestic prices in developing countries generally remain very high and the food crisis has not disappeared. The multiple causes of the food crisis include: droughts in key food producing countries, dwindling grain stocks, market speculation, changing food consumption patterns in emerging economies, increasing world population, world trade agreements, use of agricultural land for biofuel production, higher oil and farm input prices, lack of technical and research capacity and declining investment in the agricultural sector over the last 30 years.

It is expected that 70 % more food will be needed between now and 2050 to satisfy the demand of a population of 9.1 billion people. However, resources are becoming limited. Unconstrained water use has grown globally at more than twice the rate of population increase in the last century, and reliable water services can no longer be delivered in many regions. Agriculture accounts for 70% of global fresh water withdrawals and more than 90% of its consumptive use and is therefore both a cause and a victim of water scarcity. Diminished water availability due to increased competition, reduced water quality due to pollution, salinisation from improper use of irrigation water all reduce crop production and must be addressed through technological advances, technology transfer and policy development. With climate change, droughts and floods will become more frequent, and rising sea levels will flood low-lying agricultural areas and contaminate coastal aquifers. The increased use of agricultural land for biofuel production and the impacts of climate change and growing water scarcity will exacerbate global food production particularly in the semiarid tropics where 800 million more people are expected to be affected by food insecurity.

## **Rationale:**

The fragility of global food security, which had been developing for years, remained undetected by governments and international and national organizations directly involved in promoting and developing a safe and secure world food supply. The challenges of global food security require a multidisciplinary understanding of agriculture, environmental and climate sciences, economics, engineering, health, nutrition, and social science. Many professionals working in the field of food security and sustainable development tend to have expertise in only one or two of the above sectors. Their educational background lacks cross-disciplinary knowledge and they often do not have exposure to the ground level practicalities of policy management and project implementation. It is critical to engage experts from different sectors and diverse regions of the world in discussion and analysis of the complex issues of food security.

Recent recognition that global food security is a significant and long term problem has put it at the top of international agendas. The World Bank developed the Global Food Crisis Response Program in 2008, a \$1.4 billion effort targeting 44 countries. The UN High-Level Task Force on the Global Food Crisis, created in April 2008, resulted in the Comprehensive Framework for Action, a global strategy and action plan to address long-term measures to achieve sustainable food security. Increasing food security is now one of the three priority themes at the Canadian International Development Agency (CIDA). The Canadian International Food Security Research Fund (CIFSRF), a joint program of the International Development Research Centre (IDRC) and CIDA, was created in October 2009 and will spend \$62 million on applied research to address food insecurity in developing countries over the next 5 years.

McGill University offers expertise in the many sectors involved in food security including agriculture, health, environment, economics, sustainable development, and trade through the Faculty of Agricultural and Environmental Sciences, the McGill School of Environment, the Brace Centre for Water Resources Management, the Institute for the Study of International Development, the School of Dietetics and Human Nutrition, the Global Environmental and Climate Change Centre, the McGill Institute for Health and Social Policy, the McGill Nutrition and Food Science Centre, the Institute of Parasitology, and the Centre for International Sustainable Development Law.

FAES is a world leader in fields related to agriculture, food, nutrition, and the environment. Since its founding in 1907, the Faculty has played a significant role in increasing productivity in the agricultural and food sectors while, at the same time, finding better ways to protect the environment in Quebec, across Canada and internationally. Now in its second century, the Faculty is playing a critical role in promoting environmental management, sustainable agriculture and improved human health through better food and nutrition. FAES is directly involved with many international organizations and foreign governments that are deeply concerned with food security. These include organizations such as the CGIAR, FAO, CIDA, IDRC, UNEP, ICID, and countries such as Morocco, Egypt, Kenya, Nigeria, Zambia, Panama, Brazil, Guyana, China, India, and Uzbekistan. Current faculty expertise in food security is illustrated by the 27 applications made to the CIFSRF program (Appendix A).

The administrative location of the McGill Institute of Global Food Security in the Faculty of Agricultural and Environmental Sciences will allow the University to take advantage of a core of teaching and research expertise located at the Macdonald Campus that includes not only the professors and staff of its seven academic units (Plant Science, Animal Science, Food Science, Bioresource

Engineering, Natural Resource Science, School of Dietetics and Human Nutrition, Institute of Parasitology) but also the Green Crop Network, the McGill Network for Innovations in Biofuels and Bioproducts, the Environmental Impact Assessment program, and the Brace Centre for Water Resources Management.

The proposed Institute will develop a Professional Masters in International Agriculture and Food Security that will provide students with the substantive knowledge required to analyze and diagnose multi-dimensional problems with respect to food security, nutrition, land and water management, climate change, and markets and trade in rural regions of developing countries. It will oversee the delivery of the International Agriculture and Food Systems major and the multidisciplinary specialization in Agriculture and Food Systems in the BSc (Agr.Env.Sc) degree. It will carry out training of graduate students, and research and technology transfer through projects such as those described in Appendix A. The Institute will undertake policy analyses and development papers on aspects of food security and organize and deliver the annual international Global Food Security conference. FAES has well-established links with several universities in developing countries including the University of Nairobi (Kenya), Tamil Nadu Agricultural University (India), South China Agricultural University and the University of the West Indies and, through the proposed Institute, will work with these universities to develop and offer a series of intensive short courses for professionals. The Mediterranean Agronomic Institute of Bari (Italy) has expressed interest in helping to develop the Professional Masters of International Agriculture and Food Security.

### **Mission and Objectives:**

The McGill Institute of Global Food Security will draw on the broad interdisciplinary strength and international experience of both campuses of McGill University to develop an innovative and multidisciplinary research, development and training agenda that will address the complex factors that limit food security and improve the links between local or regional based organizations and international organizations who are all striving towards similar goals of poverty alleviation. Alleviation of food insecurity and poverty is rooted in improving and protecting the health, well-being and livelihoods of people. All training, research and policy development carried out by the Institute will be framed within an agenda that aims to improve the socio-economic well being of people.

### **Training**

- Oversee the delivery of the International Agriculture and Food Systems major and the multidisciplinary specialization in Agriculture and Food Systems in the BSc (Agr.Env.Sc) degree and enhance undergraduate learning opportunities with other university wide programs such as those delivered by the McGill Institute for the Study of International Development. These programs will prepare students for participation in project management and policy development, for working alongside a range of development specialists and for subsequent acquisition of specific expertise in components of agricultural and food science. The program includes ample opportunities for internships and independent research so students from Canada or abroad can gain a hands-on understanding of agricultural and food systems in developing countries.
- Create a Professional Masters in International Agriculture and Food Security that will be designed to train highly skilled “generalist” practitioners equipped with knowledge and skills



to confront complex, multi-disciplinary development challenges. The program will integrate key disciplines of agriculture, environmental and climate sciences, economics, health, nutrition, and social science and a new course will be developed to foster skills in problem-solving, critical self reflection and teamwork. Practical exercises would be based on technical and theoretical knowledge drawn from concurrent course work

- Provide support for six graduate students working on the Masters in International Agriculture and Food Security.
- Provide support for two postdoctoral fellows who would be involved in broad-based research, field work and high level discussions with experts to develop policy and/or program recommendations for food security
- Offer intensive, short courses for professionals from developing countries to provide a combination of theory and practical exercises in targeted areas such as nutrition, water resource management and adaptation to climate change.

#### Research and technology transfer

- Serve as the focal point for defining an innovative research agenda, and promoting and facilitating collaborative, interdisciplinary research relating to factors affecting food security and food security
- Undertake national and international research and technology transfer programs that support the needs of governments, international agencies, foundations, and the agriculture and food industries, related to food safety and food security.
- The six Research Themes are:
  1. *Plant and Animal Biotechnology*: The Institute will work with international agencies, governments, foundations, the CGIAR, National Agricultural Research Systems (which also include Universities and NGOs), and the private sector to stimulate and support research of new technologies in the agricultural sector such as the development of drought and disease resistant and salt tolerant crops, plant and animal genomics, animal disease and health, and livestock management systems.
  2. *Biofuels*: The emerging biofuels market is now a significant source of demand for agricultural commodities such as sugar, maize, oilseeds and palm oil. This production of crops for biofuels diverts land away from food production, reduces food availability and drives up food prices. Biofuels are beneficial for reducing CO<sub>2</sub> emissions, supplying renewable energy as fossil fuel sources disappear and for stimulating rural economies. The recent link between food and energy markets has focused attention on the development of nonfood resources (cellulosic ethanol) grown on marginal agricultural land. Expanded biofuel production may threaten land and water resources as well as biodiversity, and appropriate land-use policy measures are required to minimize possible negative effects. Research in the biofuels theme will revolve around tracking biofuel developments worldwide particularly the trade-offs between food and energy production, monitoring development of biofuel crops and production systems, and identifying the social and environmental impacts of increased biofuel production.

3. *Water, Land and Climate:* Properly managed water and land resources are critical to ecosystem health and productivity and to food security. Water scarcity is becoming a serious issue worldwide and agriculture, a major water consumer in many countries, will suffer due to less available water. Agricultural land use and management changes resulting from climate change will further alter water availability and quality. Regions that rely on large irrigation systems for food production will be vulnerable as temperature changes alter runoff patterns. Agriculture and food security policies are strongly connected to water policies which in turn have profound effects on how water is managed and used at district and local levels. Coherence between them must be ensured. Many technologies already exist to improve water use efficiency, increase water storage and reduce water and land degradation but there is a tremendous time lag custom-fitting these technologies to different landscapes and farming systems. Innovative programs need to be developed to rapidly transfer appropriate technologies to food insecure regions to promote sustainable land and water use, improve crop yields and prevent environmental degradation. Climate adaptation measures need to be researched and transferred to various socio-economic and eco-regions.
4. *Markets and Trade:* Farmers in developing countries cannot compete with exports from developed countries that heavily subsidize agriculture and they are often put out of business by cheap imports. International trade policies and market liberalization have led to an increased dependence of developing countries on cheap food imports. In addition, the capacity for effective and efficient financial, marketing and information transactions is very weak in the agricultural sector in many developing countries which limits food production, wealth creation and economic integration, particularly of small farmers. Innovative programs need to be developed to link actors in the agricultural chain, manage risk and encourage rural entrepreneurship, particularly among women in rural communities, so that value can be added to basic food commodities, wealth generated and food purchasing power increased in vulnerable communities. The impacts of international market and trade policies on local food production requires further study, and the trade barriers to food security must be identified for specific countries.
5. *Nutrition:* As food prices increase, nutritional foods are most often cut from diets, resulting in negative health outcomes. Children who are malnourished in the first months of life are developmentally and cognitively impaired with lifelong implications. Malnourished adults suffer fatigue and reduced work productivity. Research in this theme will include devising nutrition fortification additives to enhance the dietary status of affected populations. Nutritional assessment and nutrition education studies for mothers will be implemented. School food and nutrition programs that can be implemented not only during the school year, but year round will be devised and tested. The School of Dietetics and Human Nutrition and the McGill Centre for Nutrition and Food Science will be involved in this thematic area.
6. *Food Safety:* Several contaminated food outbreaks have occurred in the past two years with tragic human consequences and tremendous costs to the food industry. This has occurred in spite of the adoption of recognized science-based systems that are used to address food safety on a global scale and has shaken society's confidence in the safety of

the food supply. Food security must address the need to provide a food supply that is not just available and affordable, but is also safe for consumption. This research theme will work with government and industry partners to monitor, detect and control both traditional and emerging food safety hazards of the entire food supply chain from food production through food processing to consumption and effects on the health of consumers. Safer methods of storage, processing, packaging and distributing food products will be devised. These technologies will be integrated within a more advanced food and product traceability framework.

#### Policy development and conference organization

- Undertake policy analyses and development papers on aspects of food safety and food security.
- Organize and deliver national and international symposia and conferences in the multidisciplinary area of food security, with an emphasis on global development.

#### Partnerships

- Serve as an institutional link with other centres, networks, institutes, schools where there are obvious potential synergies both within FAES, and the University as a whole. These include but are not limited to the Institute for the Study of International Development, McGill School of the Environment, Green Crop Network, Network for Innovations in Biofuels and Bioproducts, Brace Centre for Water Resources Management, Global Environmental and Climate Change Centre, McGill Global Health Programs, McGill Nutrition and Food Science Centre, McGill Institute for Health and Social Policy, Centre for International Sustainable Development Law (see Appendix B for details of these units).
- Develop collaborative partnerships with governments, the private sector, foundations and external agencies such as the Canadian Food Inspection Agency (CFIA), Canadian International Development Agency (CIDA), Agriculture and Agri-food Canada (AAFC), International Development Research Center of Canada (IDRC), Canadian Centre for Policy Alternatives (CCPA), Canadian Agri-Food Policy Institute (CAPI), The World Vegetable Centre (ARDC), Consultative Group on International Agricultural Research (CGIAR), Carnegie Endowment for International Peace, Inter-American Institute for Cooperation on Agriculture (IICA), International Fund for Agricultural Development (IFAD), International Rice Research Institute (IRRI), US Farm Foundation, Organization for Economic Co-operation and Development (OECD), International Food Policy Research Institute (IFPRI), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), International Water Management Institute (IWMI), Pride Africa, Syngenta-Foundation for Sustainable Agriculture, World Bank, UN Food and Agriculture Organization, World Food Program (WFP), International Commission on Irrigation and Drainage (ICID) (see Appendix C for details of these units).
- Work with other universities to develop and offer the Masters in International Agriculture and Food Security and intensive short courses. (see Appendix D for details of these universities).

**Strategic positioning of the McGill Institute for Global Food Security:**

There is currently no similar institute at a Canadian peer research intensive university (see Appendix E). This puts McGill in a unique and strategic leadership position among its peers, given the international and comprehensive nature of McGill. The University's academic plan, *Strengths, Forces and Ambitions*, emphasizes McGill's interdisciplinary and international niches, which sets it apart from other universities. Due to the fact that there is high caliber expertise in Faculties ranging from agriculture, food, nutrition, environment, international studies and development, health, management, sustainable development law, anthropology, economics, and sociology, the Institute can offer teaching and research programs of the highest international standards. Few Canadian institutions have such capacity and capability. Furthermore, the Institute can draw upon McGill's vast national and international networks for research and training partnerships which can make a difference when it comes to finding solutions to complex interdisciplinary problems.

The Institute will become a key international player that will initiate a widespread network of knowledge and expertise to contribute directly to resolving the complex economic, environmental and social factors which impact world food supply, food safety and the world's poor. It has the potential to make McGill a world leader in developing new directions for long term solutions that will lead to sustainable food production, and a safe and nutritious food supply that is available and affordable worldwide.

Partnerships with other Faculties and units within the University (Appendix B) with national and international organizations (Appendix C) and other universities (Appendix D) will be formed to address the research themes. The proposed Institute will allow McGill faculty members to take better advantage of new funding sources related to issues of food safety and security.

**Governance:**

**Director**

The Institute will be led by a Director who is a senior, internationally distinguished academic in the Faculty of Agricultural and Environmental Sciences. The Director will report to the Board of Trustees, chaired by the Dean of Agricultural and Environmental Sciences.

The Director is responsible for the day to day administration and financial management of the Institute, and he/she will be assisted by the six Research Theme Leaders and the Program Director of the undergraduate major in International Agriculture and Food Systems. The Research Theme Leaders can be from any Faculty in the University, and the Program Director of the International Agriculture and Food Systems major is from FAES. The Research Theme Leaders are appointed by the Board of Trustees, and can serve for a maximum of six consecutive years.

**Board of Trustees**

The Institute will be managed by a Board of Trustees and membership of the Board will include the Dean of Agricultural and Environmental Sciences or delegate (Chair of the Board), Director of the McGill Institute of Global Food Security or delegate, Dean of Arts or delegate, Dean of Law or delegate, Dean of Science or delegate, one of the Research Theme Leaders who will serve by rotation for a two year term, the Program Director of the undergraduate major in International Agriculture and Food Systems, one representative of the external partners. The terms of the members of the Board will be

three years (except the Research Theme Leader). The Board will meet at least once a year to advise the Director on issues related to management, operations, finances, and planning of the Institute activities.

*Board Members:*

Institute Director: *To be recruited as a TT professor from FAES*  
 Agricultural and Environmental Sciences: *Chandra Madramootoo*  
 Arts: *Phil Oxhorn* (Centre for Developing Area Studies)  
 Law: *Daniel Jutras* (Dean, Faculty of Law)  
 Sciences: *Peter Grutter* (Faculty of Science)  
 Research Theme Leader: *Don Smith* (FAES)  
 Program Director, International Agriculture and Food Systems: *Anwar Naseem* (FAES)  
 External Partner: *Jean Lebel* (IDRC)

Academic staff

Research Theme leaders, research and professional staff will come from academic and postdoctoral staff already appointed in the Faculty of Agricultural and Environmental Sciences, the Faculty of Arts, Faculty of Law, Faculty of Science, Institute for the Study of International Development, McGill Nutrition and Food Science Centre, School of Dietetics and Human Nutrition, McGill School of the Environment, and other staff from units listed in Appendix A.

*Research Theme Leaders:*

Plant and Animal Biotechnology: *Alan Watson* (Biopesticide Research Laboratory)  
 Biofuels: *Don Smith* (Network for Innovations in Biofuels and Bioproducts)  
 Water, Land and Climate: *Gail Chmura* (Global Environmental and Climate Change Centre)  
 Markets and Trade: *tbn* (Desautels Faculty of Management)  
 Nutrition: *Tim Johns* (School of Dietetics and Human Nutrition)  
 Food Safety: *Inteaz Alli* (Food Quality Assurance and Food Analysis)

Support staff

An administrative assistant will assist the Director with the administration and operations of the Institute. Other support staff can be recruited in time, as the Institute garners external grants and contracts.

**Resources: required and obtained**

Budget and sources of funding

Seed money obtained from the Provost's Priority Pool:

2009-2010	\$200,000
2010-2011	\$150,000

Estimated sources of funding: Syngenta Foundation (\$5 million)

Funding under active negotiation: CIDA, IDRC, World Bank, IFAD, MacArthur Foundation

Staff members of FAES have just submitted 27 applications for research funding from the newly created Canadian International Food Security Research Fund, a joint initiative between IDRC and CIDA that will support research partnerships between Canadian and developing-country organizations (Appendix A).

#### Faculty Positions and Staffing

The Faculty of Agricultural and Environmental Sciences will provide the salary of the Director as well as support to relieve the Director of some teaching responsibilities. Salaries of research theme leaders will also come from their Faculties. Funding for an administrative assistant, graduate students and postdoctoral fellows will come from the funding sources described above.

#### Physical Resources

Office space and general operations will be provided by the Faculty of Agricultural and Environmental Sciences

#### Budget:

Institute Director	Tenured FAES staff member
Office space and general operations	Provided in the Faculty of Agricultural and Environmental Sciences
Administrative Assistant	\$30,000/y
Six Graduate Student Fellowships	\$100,000/y
Two Postdoctoral Research Fellow	\$100,000/y
Other University in-kind support	\$50,000/y

#### Appendices:

Appendix A: Proposals submitted by the Faculty of Agricultural and Environmental Sciences to the Canadian International Food Security Research Fund (CIFSRF)

Appendix B: Potential Internal Partners of the McGill Institute of Global Food Security

Appendix C: Potential Partners of the McGill Institute of Global Food Security outside of the University

Appendix D: University Partners of the McGill Institute of Global Food Security

Appendix E: Brief Survey of Similar Units Elsewhere

## Appendix A

## Proposals submitted by the Faculty of Agricultural and Environmental Sciences to the Canadian International Food Security Research Fund (CIFSRF)

	Principal Investigator	Project Title	Partner Institution	Country
1.	Ngadi, Michael	<i>Postharvest and value chain development for food security in Nigeria</i>	Federal University of Agriculture, Makurdi, Michael Okpara University of Agriculture, Umudike	Nigeria
2.	Orsat, Valérie	<i>Strengthening of rural families through empowerment by introducing food security through production, processing and value addition of regional staple food grains</i>	University of Agricultural Sciences, Dharwad	India
3.	Raghavan, Vijaya	<i>Food Security through Applied Post-Harvest Technologies</i>	Tamil Nadu Agricultural University; University of Agricultural Sciences, Dharwad, University of Agricultural Sciences, Bangalore	India
4	Gear, Timothy	<i>Biotechnology-based screening based on a Pan African Natural Product Library for the development of new livestock anti-parasitics in Africa</i>	University of Cape Town, University of Science and Technology, African Biodiversity Conservation and Innovations Centre, African Institute of Biomedical Science & Technology	South Africa, Sudan, Kenya, Zimbabwe, Canada, Ethiopia, Botswana, Tanzania, Cameroon

5	Hickey, Gordon	<i>Enhancing food security and environmental sustainability through innovative agricultural technologies and climate change adaptation strategies in the semi-arid midlands of Kenya</i>	Kenya Agricultural Research Institute	Kenya
6	Johns, Timothy	<i>Improving conservation, productivity and market access of nutritionally-rich underutilized agrobiodiversity for food security in semi-arid areas of Kenya</i>	Kenya Agricultural Research Institute, African Biodiversity Conservation and Innovations Centre	Kenya
7	Kushalappa, Ajjamada	<i>Improving indigenous potato cultivars for food security in Colombia through advanced breeding tools</i>	National University of Colombia, University of New Brunswick	Colombia, Canada
8	Kushalappa, Ajjamada	<i>Advanced breeding technologies to enhance productivity of aerobic rice and tomato, for food security in India and Rwanda</i>	University of Agricultural Sciences, Bengaluru, Vital Mallya Scientific Research Foundation, National University of Rwanda	India, Rwanda
9	Madramootoo, Chandra	<i>Overcoming micronutrient malnutrition by expanding food choices and vegetable production in West Africa</i>	Institut de l'Environnement et des Recherches Agricoles, Conseil de développement durable pour l'Afrique, Fédération Nationale des Groupements Naam, Ministère de l'Agriculture, de l'Hydraulique et des Ressources Halieutiques	Burkina Faso
10	Marquis, Grace	<i>A stepwise approach to integrate agriculture and nutrition to meet the needs of East Africa's poorest smallholders</i>	Kampala International University	Uganda, Kenya, Tanzania
11	Naseem, Anwar	<i>Implications of Post-Harvest Losses of Citrus Fruits for Domestic and International Chain Participation of Smallholder Producers in South Africa and Nigeria</i>	University of Fort Hare, University of Nigeria	South Africa, Nigeria



12	Orsat, Valérie	<i>Integrated production and post harvest technologies for South Indian food supply</i>	University of Horticultural Sciences, Bagalkot, Kerala Agricultural University, Ranga Agricultural University, University of Agricultural Sciences, Raichur, Tamil Nadu Agricultural University	India
13	Orsat, Valérie (submitted by Université de Montréal)	<i>La sécurité alimentaire en Haïti: une approche sociale et écologique</i>	Université de Montréal, Université d'État d'Haïti, Institut de Recherche et d'Animation Technique en Aménagement du Milieu, CARTAS, Groupe d'Appui au Développement Rural	Haïti
14	Phillip, Leroy	<i>Improving the nutrition and health of CARICOM populations through sustainable agricultural technologies that increase food availability and diversity of food choices</i>	University of the West Indies, University of Guyana	Trinidad and Tobago, Guyana
15	Prasher, Shiv	<i>Development and Implementation of Watershed Based Integrated Farming Systems and Strategies for Food, Nutrition and Environmental Security in Rural India</i>	Central Soil and Water Conservation Research and Training Institute	India
16	Prasher, Shiv	<i>Empowerment of Rural farmers in adapting innovative Agro technologies to ensure food security under changing climate</i>	Tamil Nadu Agricultural University	India
17	Raghavan, Vijaya	<i>Development and Implementation of appropriate Post-Production Systems in Senegal</i>	Université de Thiès - École Nationale Supérieure d'Agriculture	Senegal
18	Ramaswamy, Hosahalli	<i>Novel technology development and innovations in the traditional milk value chain to provide sufficient and safe access to nutrient milk and milk products in developing countries</i>	Intercooperation Social Development India	India, Bangladesh

19	Scott, Marilyn	<i>Identification of the Set of Social, Biophysical and Maternal Factors that Characterize Guatemalan Mayan-Mam Infants Who Grow Well Within a Context of Food Insecurity, Subsistence Agriculture, Extreme Poverty, and Infection: Application of Positive Deviance Methodology at the Individual and Community Level</i>	Centre for Studies of Sensory Impairment, Aging and Metabolism	Guatemala
20	Simpson, Benjamin	<i>Food Insecurity in Rural Ghana: An Integrated Approach to Reduce Poverty, Hunger and Disease in Rural Ghanaian Women and Children</i>	Kumasi Polytechnic	Ghana
21	Singh, Jaswinder	<i>Application of Pre-Breeding to Enhance Deployment of Genebank Germplasm for Plant Breeding Programmes for Food and Nutritional Security in the SADC Sub-region</i>	SADC Plant Genetic Resources Centre	Zambia, Malawi, Tanzania, Zimbabwe
22	Singh, Jaswinder	<i>Integrating Available Molecular Tools with Plant Breeding to Improve Drought Tolerance in Cereals for Enhancing Food Security in Indian Subcontinent</i>	Punjab Agricultural University, Indian Institute of Technology, Roorkee	India
23	Smith, Donald	<i>Enhancing Soil Fertility and Productivity in Pigeonpea and Groundnut Cropping Systems of Eastern and Southern Africa</i>	Naliendele Agricultural Research Institute, Kenya Agricultural Research Institute-Katamani, Ngetta Zonal Agricultural Research and Development, Chitedze Agricultural Research Station-Lilongwe	Tanzania, Kenya, Uganda, Malawi
24	Smith, Donald	<i>Leveraging sweet sorghum based low input and sustainable agricultural systems in India and Mali for food security and livelihood opportunities</i>	Institut d'Economie Rurale	Mali, India

25	Thomassin, Paul	<i>Improvement of under-utilized and neglected crops in low-income food deficit areas in India and Bangladesh through Genetic and Biotechnology related Techniques for food, nutrition and Income security</i>	Jadavpur University, Bidhan Chandra Agricultural University, St. Xavier's College, Dhaka University	India, Bangladesh
26	Watson, Alan	<i>Development and Implementation of a Biocontrol Product for Integrated Striga Management (ISM)</i> <i>Postharvest Crop Loss Management and Sustainable Control of Root Knot and Cyst Forming Nematodes of Wheat, Soybean and Vegetables for Improvement of Nutrition and Food Security in China and South Asia</i>	Fondation Agir pour l'Education et la Santé, Plant Health Products (Pty) Ltd. Zhejiang University, University of Laval	Senegal, South Africa, Benin Bangladesh, China, India, Pakistan
27	Whalen, Joann			

## Appendix B

### Potential Internal Partners of the McGill Institute of Global Food Security

**Brace Centre for Water Resources Management** brings together staff from several McGill faculties to undertake research, teaching, specialized training, and policy and strategic studies in water resources management, both in Canada and internationally. Areas of research and development include irrigation and water table management, modernization of irrigation schemes and on-farm water management, impacts of climate change on water resources, capacity building and institutional reform of the water sector, drought management, flood control, energy and water use efficiency in irrigated agriculture, salinity, and water conservation and reuse.

**Centre for International Sustainable Development Law** promotes sustainable societies and the protection of ecosystems by advancing the understanding, development and implementation of international sustainable development law

**Global Environmental and Climate Change Centre** is a cross-disciplinary, multi-university research centre bringing together more than 40 researchers from six Quebec universities to study processes, modeling and impact of environmental and climate change

**Global Health Programs (GHP)** of the McGill Faculty of Medicine is committed to improving the health of people and populations worldwide through educational, clinical, developmental and research programs that link McGill faculty and students with colleagues throughout Canada and the world in collaborative projects.

**Green Crop Network (GCN)** is a unique Canadian nation-wide research network for sustainable greenhouse gas (GHG) management in agricultural production systems. This network is a composite of the world-class expertise of 50 respected Canadian scientists and more than 46 graduate students in 14 universities across Canada. Professor D.L. Smith, Chair of Department of Plant Science at McGill University, is the scientific director of this national research network. The headquarters of the network is located at the Department of Plant Science, McGill University. The network focuses on advancing the scientific insights and technologies needed to develop high performing crops ideally suited for the Canadian climate.

**Institute of Parasitology** is devoted to parasitic diseases in man and animals. Although half of humanity is exposed to parasitic infectious diseases, only a small fraction of global health research and development is directed to reducing this global health problem. The basis for this unequal distribution of health resources is largely economic, since many developing countries fall outside the world's economic markets. There is little incentive for the private sector to develop new treatments against human parasitic infections because the people who need these treatments cannot afford to pay for them. As a result, parasites fall low on the industrialized world's list of medical research priorities.

**Institute for the Study of International Development (ISID)** has a focus on multidisciplinary research and teaching on development, establishing new relations with the international

development community, and on training future generations of researchers, teachers, policymakers and development practitioners.

**McGill Institute for Health and Social Policy** is a multidisciplinary research institute that studies the impact of social conditions on health and leads programs to translate research into effective policy and improve those conditions worldwide. The Institute conducts research on social conditions critical to the health and wellbeing of the world's worst-off. Initiatives address both daily risks and erosion of health from long term poverty, and acute risks from rapidly evolving crises. Programs range from addressing the impact of globalization on working poor families, to the social impact of AIDS in Africa, from the effects of migration on transnational working families to the conditions faced by children in war-torn and post-conflict countries.

**McGill Nutrition and Food Science Centre** conducts research and teaching activities jointly with the School of Dietetics and Human Nutrition and the Faculty of Medicine. The Crabtree Laboratories of the Centre in the Royal Victoria Hospital Centre in Montréal and other McGill teaching hospitals have excellent clinical research facilities and offer opportunities to conduct clinical research in the areas of cardiovascular disease, diabetes, lipids, nutrition support, obesity, gastrointestinal disorders and pediatrics.

**McGill Network for Innovations in Biofuels and Bioproducts (McNIBB)** focuses on bringing together university, government and industry participants from across Canada to enhance and transfer biofuels and bioproducts research knowledge into technologies and products. The Centre aims to position McGill as a leader in biofuels, bioproducts and bioprocesses innovation while emphasizing the need for collaboration across faculties, schools and departments, as well as with other universities in Quebec, other national, international research institutions and industry to create the innovation chain that will fuel the development of a bio-based Canadian economy

**McGill School of the Environment (MSE)** has 20 jointly appointed faculty from the Faculties of Agricultural and Environmental Sciences, Arts, Law, and Science and offers programs that bridge the boundaries between disciplines. There are no simple solutions to environmental problems. Besides the physical and biological aspects, each environmental issue has cultural, economic and ethical dimensions. The MSE aims to generate new ideas, new insights, new technologies, and new approaches to understanding and redressing environmental problems through academic research and outreach that draws on the University's existing strength in research and spans disciplinary boundaries.

**School of Dietetics and Human Nutrition** is based on the unifying theme of health and well-being of individuals in relation to food choices and physiological status. The availability of food, normal metabolism and clinical nutrition, community nutrition at the local and international level, the evaluation of nutritional products and their use in nutrition, and the communication of information about food and health in both developed and developing countries are all important areas of research and development at the School.

## Appendix C

### Potential Partners of the McGill Institute of Global Food Security outside of the University

**Alliance for a Green Revolution in Africa (AGRA)** established by The Rockefeller Foundation and the Bill and Melinda Gates Foundation in 2006 and currently working with African governments, other donors, non-governmental organizations (NGOs), the private sector, and African farmers to improve the productivity and incomes of resource-poor farmers in Africa.

**Asian Vegetable Research and Development Center (ARDC- the World Vegetable Centre)**, is the world's leading international nonprofit research and development institute committed to alleviating poverty and malnutrition in developing countries through vegetable research and development

**Canadian Agri-Food Policy Institute (CAPI)** an independent, non-governmental organization dedicated to the long-term success of Canada's agri-food sector. CAPI provides a "third voice" on critical issues facing government and industry, helping keep Canada at the leading edge of the global agri-food marketplace

**Canadian Centre for Policy Alternatives (CCPA)** an independent, non-partisan research institute concerned with issues of social and economic justice.

**Canadian Food Inspection Agency (CFIA)** is a Canadian government agency that works toward minimizing and managing public health risks associated with the food supply and transmission of animal disease to humans, and a safe and sustainable plant and animal resource base. It contributes to consumer protection and market access based on the application of science and standards.

**Canadian International Development Agency (CIDA)** is Canada's lead agency for development assistance Within the framework of its aid effectiveness agenda and to sharpen the focus of Canada's international assistance, the Government of Canada has established three priority themes to guide CIDA's work: increasing food security; securing the future of children and youth; and stimulating sustainable economic growth.

**Carnegie Endowment for International Peace** is a private, nonprofit organization dedicated to advancing cooperation between nations and promoting active international engagement by the United States. Founded in 1910, its work is nonpartisan and dedicated to achieving practical results. It offers leading experts on international affairs, particularly in the areas of Russia and Eurasia, China, the Indian subcontinent/South Asia, globalization, nonproliferation and security affairs.

**Consultative Group on International Agricultural Research (CGIAR)**, established in 1971, is a strategic partnership, whose 64 Members support 15 international Centers, working in collaboration with many hundreds of government and civil society organizations as well as private businesses around the world. CGIAR Members include 21 developing and 26 industrialized countries, four co-sponsors as well as 13 other international organizations. Today, more than 8,000 CGIAR scientists and staff are active in over 100 countries throughout the world.

**Farm Foundation** serves as a catalyst for sound public policy by providing objective information to foster deeper understanding of issues shaping the future for agriculture, food systems and rural regions. Farm Foundation does not lobby or advocate. Our 75-year reputation for objectivity allows us to bring together diverse stakeholders for discussions on issues and public policies. The Foundation addresses issues significant across the face of agriculture and rural America—regardless of geographic, livestock or crop boundaries.

**Food and Agriculture Organization of the United Nations (FAO)** leads international efforts to defeat hunger. Serving both developed and developing countries, FAO acts as a neutral forum where all nations meet as equals to negotiate agreements and debate policy. FAO is also a source of knowledge and information and helps developing countries and countries in transition modernize and improve agriculture, forestry and fisheries practices and ensure good nutrition for all.

**Inter-American Institute for Cooperation on Agriculture (IICA)** is a specialized agency of the Inter-American System, and its purposes are to encourage and support the efforts of its Member States to achieve agricultural development and well-being for rural populations

**International Crop Research Institute for the Semi-Arid Tropics (ICRISAT)** is a nonprofit, non-political organization that does innovative agricultural research and capacity building for sustainable development with a wide array of partners across the globe.

**International Development Research Centre (IDRC)** is a Crown corporation created to help developing countries use science and technology to find practical, long-term solutions to the social, economic, and environmental problems they face. It funds **applied research** by researchers in developing countries on the problems they identify as crucial to their communities. Most supported projects result from direct exchanges between the Centre and developing-country institutions. IDRC **provides expert advice** to those researchers and **builds local capacity** in developing countries to undertake research and innovate.

**International Food Policy Research Institute (IFPRI)** seeks sustainable solutions for ending hunger and poverty. IFPRI is one of 15 centers supported by the CGIAR. IFPRI's mission focuses on identifying and analyzing alternative international, national, and local policies in support of improved food security and nutrition, emphasizing low-income countries and poor people and the sound management of the natural resource base that supports agriculture; contributing to capacity strengthening of people and institutions in developing countries that conduct research on food, agriculture, and nutrition policies; and actively engaging in policy communications, making research results available to all those in a position to apply or use them, and carrying out dialogues with those users to link research and policy action.

**The International Commission on Irrigation and Drainage (ICID)** is dedicated to enhancing the worldwide supply of food and fibre for all people by improving water and land management and the productivity of irrigated and drained lands through appropriate management of water, environment and application of irrigation, drainage and flood management techniques.

**The International Fund for Agricultural Development (IFAD)**, a specialized agency of the United Nations is dedicated to eradicating rural poverty in developing countries. Seventy-five per cent of the

world's poorest people - 1.05 billion women, children and men - live in rural areas and depend on agriculture and related activities for their livelihoods. Working with rural poor people, governments, donors, non-governmental organizations and many other partners, IFAD focuses on country-specific solutions, which can involve increasing rural poor peoples' access to financial services, markets, technology, land and other natural resources.

**International Rice Research Institute (IRRI)** was established in 1960, and is the largest non-profit agricultural research center in Asia, with headquarters in the Philippines and offices in 14 nations. Supported by donors and partners around the globe, it is known as the home of the Green Revolution in Asia. IRRI helps to feed almost half the world's population and their mission is to reduce poverty and hunger, improve the health of rice farmers and consumers, and ensure that rice production is environmentally sustainable

**Kenya Agricultural Research Institute (KARI)** is a premier national institution bringing together research programs in food crops, horticultural and industrial crops, livestock and range management, land and water management, and socio-economics. KARI promotes sound agricultural research, technology generation and dissemination to ensure food security through improved productivity and environmental conservation

**National Agricultural Research System (NARS)** in a given country, encompass all institutions public or private devoting full time or partially their activities to agricultural research and committed to a national research agenda. Generally, the following categories of such institutions are identified as follows: (i) institutions whose mandate is to carry out research only, such as the NARI (National Agricultural Research Institute);(ii) higher education institutions devoting their activities to teaching and research: they are the faculties of agriculture and related disciplines and the faculties of social sciences and economics of the universities;(iii) technical departments of some ministries, development agencies that carry out some adaptive research program; and (iv) NGOs and the private sector

**Organization for Economic Co-operation and Development (OECD)** brings together the governments of countries committed to democracy and the market economy from around the world to: support sustainable economic growth; boost employment; raise living standards; maintain financial stability; assist other countries' economic development; contribute to growth in world trade. The Organization provides a setting where governments compare policy experiences, seek answers to common problems, identify good practice and coordinate domestic and international policies.

**Promotion of Rural Initiatives and Development Enterprises (PRIDE Africa)** is a research and development organization focused on the creation of commercial solutions that mainstream Africa's poor. The organization blends social entrepreneurship and business best practices to build sustainable, high-impact products that scale across Africa.

**Syngenta-Foundation for Sustainable Agriculture** supports partners who work in agriculture in resource-poor settings in developing countries and emerging markets. The purpose is to help small farmers become more professional growers by extending science-based know-how, facilitating access to quality inputs, and linking them to markets in profitable ways



**The World Bank** is a vital source of financial and technical assistance to developing countries around the world. It is made up of two unique development institutions owned by 185 member countries

**The World Food Programme (WFP)** is the United Nations frontline agency in the fight against global hunger. It is the world's largest humanitarian organization.

**Another 25 partners are also implicated in the CIFSRC applications**

## Appendix D

### University Partners of the McGill Institute of Global Food Security

**Mediterranean Agronomic Institute of Bari (Italy)** is a Centre for post-graduate training, applied scientific research and promoter of in-loco partnership actions in the framework of the international cooperation programs. It works in four thematic areas: land and water resources management; integrated pest management; organic farming and sustainable agriculture and rural development. Nicola Lamaddalena, Head of the Land and Water Department, has expressed interest in being involved with the Masters of International Agriculture and Food Security

**South China Agricultural University (SCAU)** is located in Guangzhou City, adjacent to Hong Kong and Macao. It is a multi-disciplinary, comprehensive university with agriculture, engineering, liberal arts, basic sciences, economics, management, law, education, history and philosophy. It is now adopting a multi-level and multi-approach schooling system and intends to develop into an advanced multi-disciplinary agricultural institute with distinctive tropical and subtropical features. FAES is currently offering a short course each summer on new trends in the production and environmental management of food and other bioproducts to 25 students from SCAU.

**Tamil Nadu Agricultural University (India)** has partnered with FAES in the past and continues to work with them on issues of waste water treatment, food security, health and nutrition. TNAU is the most respected agricultural institution in Southern India and researchers have long-term experience in regional agriculture and natural resource management issues.

**University of Nairobi (Kenya)** is the first institution of higher learning in Kenya has strong, diversified academic programs and specializations in sciences, applied sciences, technology, humanities, social sciences and the arts. An excellent partnership has already been established through McGill's Canadian Field Studies in Africa (CFSIA) program.

**University of the West Indies** is the oldest, fully regional institution of higher learning in the Commonwealth Caribbean. Supported by fifteen countries, the UWI is committed to the development of the region through the training of its human resources, conducting research, delivering advisory services to governments as well as to the private sector and forging links with other institutions in the wider region and the rest of the world. FAES is currently working with the Faculty of Science and Agriculture at St. Augustine in Trinidad and Tobago (UWI) on food security in CARICOM (Caribbean Community and Common Market) to link agriculture, food and health to address food and nutrition security in these countries and integrate concepts from the field of behavioral economics to understand social and economic barriers to technology adoption by small farmers in the Caribbean.

**Stanford University** studies issues of hunger, rural development, global resource and environmental degradation, agricultural technology, climate impacts on food security, and agricultural trade and policy in its *Program on Food Security and the Environment*. FAES has an ongoing relationship with the deputy director of the Program, Walter Falcon.

**Another 24 universities are partnered in the CIFSRF proposals in Appendix A.**

## Appendix E

### Brief Survey of Similar Units Elsewhere

There are no similar Institutes in other Canadian G10 and comparable research intensive universities. In the United States, four universities (see below) have research programs on various aspects of food security or in particular geographic regions with Stanford having the greatest international perspective. What sets the McGill Institute of Global Food Security apart is its basis in a Faculty where agricultural research has and continues to be an important part of its mission. Furthermore the Institute will benefit from its unique association with the School of Dietetics and Nutrition and the Department of Food Science and their international research into food safety and nutrition in developing countries.

*Ryerson University, Centre for Studies in Food Security* - committed to research, education and dissemination initiatives that inform policy development and community action. (includes urban agriculture, nutrition, sustainable agriculture)

*Stanford University, Program on Food Security and the Environment*- studies issues of hunger, rural development, global resource and environmental degradation, agricultural technology, climate impacts on food security, and agricultural trade and policy

*Cornell University, African Food Security and Natural Resources Management*

*Michigan State University, Food Security Group* - studies food security, food policy, and general agricultural development, primarily in Africa.

*Columbia University, The Earth Institute* - overarching goal is to help achieve sustainable development primarily by expanding the world's understanding of Earth as one integrated system. The institute has a very broad perspective that includes climate and society, water, energy, poverty, ecosystems, public health, food and nutrition, hazards and urbanization.



# McGill

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February 23, 2010

Provost Anthony Masi  
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Dear Provost Masi,

I write to express the support of the Dean of Law for a proposal presented to you by Dean Chandra Madramootoo of the Faculty of Agriculture and Environmental Sciences entitled "McGill Institute for Global Food Security". The Faculty of Law has a natural affinity for this project.

My predecessor had identified the interdisciplinary cluster of "Public Policy and Private Resources: Governance, Innovation and the Environment" as a strategic priority for the Faculty of Law. The Faculty has become a member of the McGill School of the Environment and has secured private funding for the general field of "sustainable development and the law" including a major gift from Hydro-Québec and from the law firm of Fasken Martineau in the related field of corporate social responsibility. The student-initiated, peer-review McGill International Journal of Sustainable Development Law and Policy, founded nearly four years ago, is flourishing and has obtained private and public financial support. There is a student-initiative "Centre for International Sustainable Development Law" (which is not, of course, a McGill "centre"), founded by McGill students and graduates, that has a student-arm in the Faculty of Law. There is significant interest in the graduate community for sustainable development and the environment. Following the passing of former Supreme Court of Canada Justice Charles Gonthier, B.C.L. 1952, fundraising has begun to honour his commitment to McGill's effort in these areas; and will culminate with a major annual lecture beginning next year, raising McGill University's profile accordingly.

On the academic side, we have a concentration in our graduate program in respect of the Law of the Environment, and two colleagues – Professor Jaye Ellis (jointly appointed with the MSE) and Professor Richard Janda -- have made the area of sustainable development and the environment their priority. The Centre for Human Rights and Legal Pluralism is interested in pursuing links between human rights and the environment, and our Boulton Senior Fellow (Law) Dr Aristide Nononsi is the executive director of the Centre for Developing Area Studies (renamed Institute for the Study of International Development) in the Faculty of Arts. The potential connections are rich and varied between Law and this venture. In advance of identifying the resources that we might invest in this project, I write to signal my support for Dean Madramootoo's proposal.

Yours sincerely,



Daniel Jutras  
Dean  
Faculty of Law

cc: Dean Chandra Madramootoo ✓  
Faculty of Agriculture and Environmental Sciences

Desmond Manderson  
Associate Dean (Law)

**From:** Peter A. Todd

**Sent:** Thursday, April 23, 2009 9:27 AM

**To:** Chandra A. Madramootoo, Dr.

**Cc:** Vihang Errunza; Laurette Dube, Prof.; Henry Mintzberg, Prof.; Rosalind Finlay

**Subject:** RE: McGill Institute of Global Food Security

Chandra. Thank you for sending me the proposal for the Institute for Global Food Security. I have reviewed the document. It appears to me to be a well developed model for integrating many of the strengths of Agriculture and Environmental Sciences with other units at McGill around a theme that is of increasing national and international importance.

I am pleased to endorse the initiative and look forward to opportunities for us to collaborate with you and your colleagues in the context of our integrated health management initiatives, led by Laurette Dube, Henry Mintzberg and other colleagues interested in health and societal well-being. There are other areas, such as commodity pricing, sustainable business models and the like, where the research of colleagues in the Desautels Faculty may also complement the important work that the Institute for Global Food Security will undertake. I am sure collaborations in these areas can be developed over time.

Best of luck on moving forward with this important initiative. If I can provide any additional input or assistance please do not hesitate to get in touch.

Regards. Peter.

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