

ENSC315

Lecture 1...

- Course overview
- Jeff Moon on library resources
- What is Food Security?
- Movie excerpt: The Global Banquet

1

Course requirements and grades

- One major written journal assignment, five in-class writing assignments, a mid-term and a final exam.
- **Journal**
 - Select a country or region that is experiencing food insecurity
 - Find four news pieces, journal articles, and/or web articles (not more than 3 of the four can be web-based). Using the articles, discuss the current food production and environmental challenges that impact this country as it strives to be food secure.
 - Four typed pages, not to exceed 1200 words
 - Due in fifth week of classes (February 10)
 - 30% of final mark

4

The people

- Instructor: Alison Blay-Palmer
 - palmera@post.queensu.ca
- Teaching assistants:
 - Jun Qian: gianjun29@yahoo.com
 - Bronwyn Keatley: keatleyb@biology.queensu.ca
 - Calvin Chan: 9cc25@qlink.queensu.ca

2

Course requirements and grades

- *In-class summary assignments*
 - Five in-class writing exercises when you will answer a question that relates to some aspect presented in that day's lecture. Each assignment is worth 5% of the final mark - we will use the best 4 of the 5 marks.
 - 20% of final mark
- *Midterm exam, February 17*
 - Short answer, definitions, models
 - 20% of final mark
- *Final Exam, during exam period, TBA*
 - Short essay questions
 - 30% of final mark

5

Course overview

- http://www.queensu.ca/envst/undergrad_information/Courses/ensc_315/ensc_315_2005_index.htm
- Welcome!
- Relationship between:
 - food security
 - food production
 - the environment
- Movies and guest lectures
- Feedback

3

Marking summary

	Due	Value
Journal	February 10	30%
In-class writing	In-class	5% x 4 = 20%
Mid-term	February 17	20%
Final exam	Exam period	30%

6

Late policy

- Extensions are **not** normally given for reasons other than illness (with proper medical documentation) or family emergency.
- Assignments that are received late will be assessed a penalty of 2% per weekday. Weekends count as two days (i.e. 4%).

7

Weeks 2 and 3 Resources and history

Week 2: January 20

Jan 21 last chance to add/drop courses with no \$\$\$\$ penalty

Lecture focus	Nutrition: Part One, Dr. Donefer FishBanks (resource allocation game)
Readings	The World Commission on Environment and Development, 1989, <i>Our Common Future</i> , 95-146

Week 3: January 27

Lecture focus	Nutrition: Part 2, Dr. Donefer Hunter gatherer to agriculture Movie: The Dust Bowl
Readings	Ronald Wright, 2004, <i>A Short History of Progress</i> , 34-48 ¹⁰

Academic dishonesty

- Academic dishonesty **will not be tolerated**. Dishonesty includes, but is not limited to, cheating on exams, 'sharing' work with a friend, or plagiarizing a secondary source – either intentionally, or inadvertently, by failing to provide proper citations. If you are unsure about what constitutes academic dishonesty, please ask me, or refer to the Arts and Science Course Calendar http://www.queensu.ca/calendars/artsci/Regulation12_AcademicDishonestyandFailuretoAbidebyAcademicRules_2391.htm

- ?????????ANY QUESTIONS?????

8

Week 4 The weather

Week 4: February 3

Lecture focus	The environment and agriculture: global climate change Movie: What's Up with the Weather?
Readings	B Smit and M Skinner, 2002, Adaptation Options in Agriculture to Climate Change: A Typology, <i>Mitigation and Adaptation Strategies for Global Change</i> , 7: 85-114 Al Gore, 1993, <i>Earth in the Balance</i> , Chapters 6, 7

11

Week 1 Overview

Week 1 January 13

Lecture focus	Course overview, introduction Guest lecturer: Jeff Moon on library resources Break (15 minutes) Introduction to global food security Movie: The Global Banquet: Part One, Who's Invited?
Readings	Google Food Security: start to look for a country of interest for journal assignment UN Food Security Declaration 2004. Available at: http://ods-ddsny.un.org/doc/UNDOC/GEN/N04/446/56/PDF/N0444656.pdf?OpenElement

9

Week 5 Urban food security

Week 5: February 10 Journal assignment due

Lecture focus	Urban food security: Toronto, Cuba and beyond Guest lecturer: Wayne Roberts, Project Co-ordinator, TFPC Group discussion
Readings	W Roberts, 2001, The Way to a City's Heart is Through Its Stomach; Toronto Food Policy Council web site http://www.city.toronto.on.ca/health/tfpc_hs_report.pdf N Wrigley, D Warm and B Margetts, 2003, Deprivation, diet and food retail access: Findings from the Leeds 'food deserts' study, <i>Environment and Planning A</i> , 35: 151-188 AW Drescher, 1999, Urban Agriculture in the Seasonal Tropics: The Case of Lusaka, Zambia, in <i>For Hunger Proof Cities</i> , eds M Koc, R MacRae, L Mougeot, J Welsh, International Development Research Centre, Ottawa, 67-76 A Moskow, 1999, The Contribution of Urban Agriculture to Gardeners, Their Households, and Surrounding Communities: The Case of Havana, Cuba, in <i>For Hunger Proof Cities</i> , eds M Koc, R MacRae, L Mougeot, J Welsh, International Development Research Centre, Ottawa, 77-83 ¹²

**Weeks 6
Water**

Week 6: February 17

Lecture focus	Water and food security MIDTERM EXAM
Readings	M deVilliers, 2003, <i>Water: The Fate of Our Most Precious Resource</i> , The Problem with Irrigation, 152-163 WE Klohn and BG Appelgren, 2004, Challenges in the field of water resources management in agriculture, <i>Food and Agriculture Organization of the United Nations</i>

MID-TERM READING WEEK February 21-25

13

**Week 11
Biotechnology and food security**

Week 11: March 31

Lecture focus	Bulking up food production? Biotechnology and food security Movie: TBA
Readings	Ismail Serageldin, 1999, Biotechnology and Food Security in the 21 st Century, <i>Science</i> , 285:387-389 Chantal Pohl Nielsen, Sherman Robinson, Karen Thierfelder, Genetic Engineering and Trade: Panacea or Dilemma for Developing Countries, <i>World Development</i> 29(8): 1307-1324 N Clark, K Stokes, J Mugabe, 2002, Biotechnology and development: threats and promises for the 21 st century, <i>Futures</i> , 34: 785-806

16

**Weeks 7 and 8
Sustainable agriculture and land use**

Week 7: March 3

Lecture focus	Agriculture, the environment and biodiversity Guest speaker: Dr. vanLoon, expert sustainable Indian food projects Movie: Reinventing the World
----------------------	--

Readings Gary VanLoon, 2004, *Agricultural Sustainability*

Week 8: March 10

Lecture focus	Land use conflicts Guest speakers: Local farmer AND Kingston Food Bank
Readings	David Campbell, Helen Gichohi, Albert Mwangi and Lucy Chege, 2000, Land use conflict in Kajiado District, Kenya, <i>Land Use Policy</i> 17: 337-348 W Husbands, 1999, Food Banks as Antihunger Organizations, in <i>For Hunger Proof Cities</i> , eds M Koc, R MacRae, L Mougeot, J Welsh, International Development Research Centre, Ottawa, 103-109

14

**Week 12
Future challenges**

Week 12: April 7

Lecture focus	Future challenges: Food security and the future International development and food security Movie: The Global Banquet: Politics of Food: Part 2: What's on the Menu? Course wrap-up Group discussion
----------------------	---

Readings F Lappe, A Lappe, 2004, Diet for a Smaller Planet: Real Sources of Abundance, in *Feeding the Future, From Fat to Famine*, eds A Heintzman and E Solomon, 125-153
V Shiva, 2004, The future of food: countering globalization and recolonisation of Indian agriculture, *Futures*, 36: 715-732

17

**Weeks 9 and 10
Politics and society**

Week 9: March 17

Lecture focus	Agriculture and the changing political and social environment Movie: Costa Rica Counts the Future
Readings	Peter Penz, 2004, Dams, Guns and Refugees, <i>Alternatives</i> , 30(4): 8-12 Clarke, P. 2000. Food Security and War in Afghanistan. <i>Development</i> 43(3): 113-119

Week 10: March 24

Lecture focus	Food security delivery Guest lecture: Brian Sterling Group discussions
Readings	D Sparling, B Sterling, 2004, Food Traceability: Assessing the Full Business Value, <i>Grocery Trade Review</i> , George Morris Centre Clugston, M. 2002, Harvest of Goodwill, <i>Canadian Geographic</i> , 122(1): 66-71 Mancusi-Manteri, E. 2000. Food Aid for Social Development in Post-Conflict Situations. <i>Development</i> 43(3): 106-112

15

Snack...

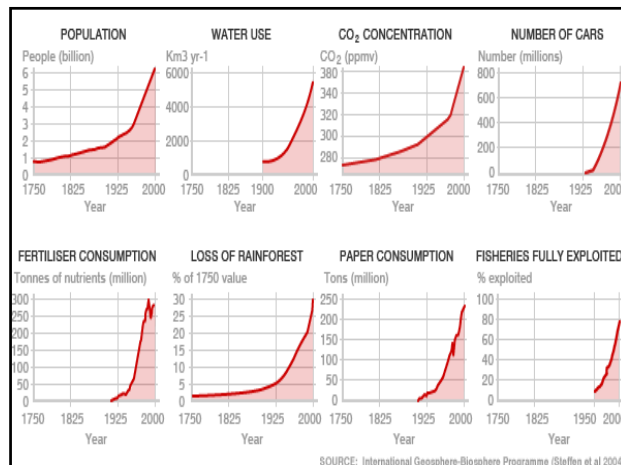
- Helps to understand:
 - Food distribution
 - Access to food

18

Guest speaker....

- Please welcome Jeff Moon
 - from Stauffer Library
 - moonj@post.queensu.ca

19



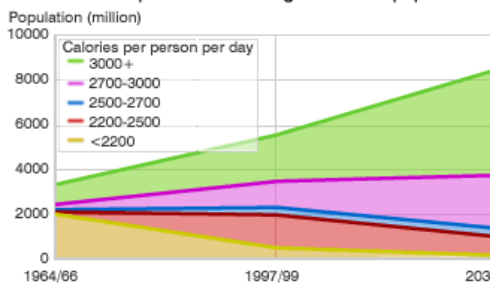
What is food security?

- Food security:
 - **Food security** exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life
 - (FAO: Special Program for Food Security, <http://www.fao.org/spfs/>)
 - When people are food insecure
 - What is hunger?
 - Clip from The Current, December 3, 2004 (20041203thecurrent_sec2_1:20-5:00)
- Akim Kambamba, former resident of Sudan

20

World calorie consumption

Calorie consumption levels among the world's population



23

The state of food insecurity

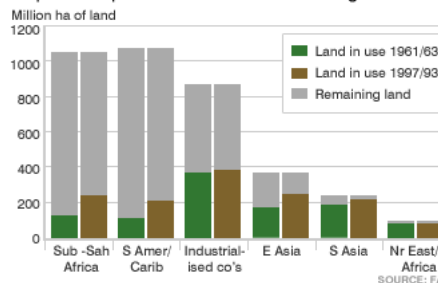
FAO, UN 2004 The State of Food Insecurity in the World

- 852 million undernourished (2000-2002):
 - 815 developing countries
 - 28 million countries in transition
 - 9 million industrialized countries
- Over 5 million children die every year from malnutrition or malnutrition-related disease
 - Between 9 and 10 children every minute

21

Land in use for agriculture

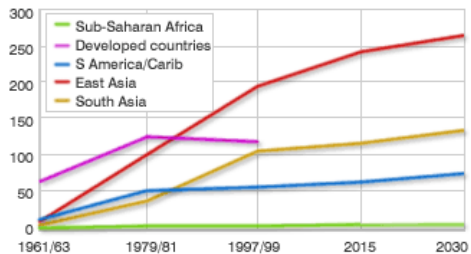
Proportion of potential arable land in use for agriculture



24

World fertilizer use

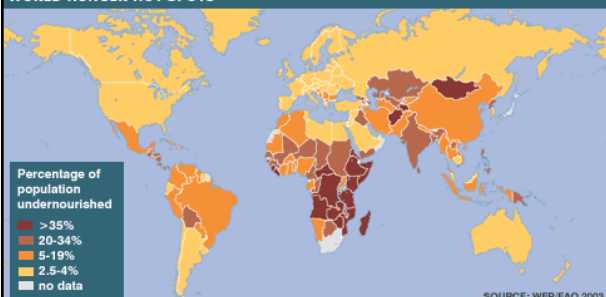
Fertilizer use per hectare
Million tonnes of nutrients



SOURCE: FAO 25

World hunger hot spots

WORLD HUNGER HOT SPOTS



SOURCE: WFP/FAO 2003

Next class...

- Lecture: Nutrition: Dr. Gene Donefer
- FishBanks
- Reading/ research:
 - Google Food Security: start to look for a country of interest for journal assignment
 - UN Food Security Declaration 2004. Available at: <http://ods-dds-ny.un.org/doc/UNDOC/GEN/N04/446/56/PDF/N0444656.pdf?OpenElement>
 - The World Commission on Environment and Development, 1989, *Our Common Future*, 95-146
- On reserve:
 - Week 2: Marion Nestle, Chapter 2, Requirements: Energy in *Nutrition in Clinical Practice*
 - Week 3: 4th Report on the World Nutrition Situation, January 2000, Nutrition throughout the Life Cycle, UN Administrative Committee on Coordination and IFPRI (International Food Research Policy Institute)

27