### Population and Sustainable Development Spring 2014, EICES, Columbia University

Tuesday April 8, 15, 22, 29 and May 6 from 6:10 pm to 8:10 pm

Instructor: Hania Zlotnik, PhD e-mail: <u>hania.zlotnik@hotmail.com</u> Assistant: Rachel Brietta Bell e-mail: <u>rbb2132@columbia.edu</u>

The instructor's office hours are by appointment only. Please contact the instructor first by email with any questions or concerns. If necessary, a phone call may be scheduled.

**Brief description of course contents and goals**: Population numbers are at the root of any assessment of future sustainability, yet they are generally not the subject of debate. It is usually taken for granted that the world population will reach 9 billion by 2050. Yet the basis for such a projection is often disregarded or misunderstood. This course will ensure that those interested in the goal of attaining sustainable development understand the assumptions involved in projecting population trends, the basis for making those assumptions and their limitations. It will also provide an overview of the causes of changing population trends and discuss their implications. It will review the models used to assess the impact of population trends on the environment, including some of those used by the International Panel on Climate Change. Lastly, it will consider why population issues have generally been downplayed or marginalized in intergovernmental processes focusing on sustainable development and discuss whether and how population policy can contribute to attain sustainability.

**Instructor's background**: Hania Zlotnik is a former Director of the United Nations Population Division in New York. She worked for the Division from 1982 to 2012, when she retired from the United Nations. She is a demographer by training and has worked in the estimation of fertility and mortality; the analysis and measurement of international migration; the preparation of population projections; the analysis of urbanization, and the preparation of urban and city projections. She provided substantive support for two major intergovernmental conferences (the 1984 World Population Conference held in Mexico City and the 1994 International Conference on Population and Development held in Cairo). As Director, she was in charge of the substantive preparation of the 2006 High-Level Dialogue on International Migration and Development and of the annual sessions of the Commission on Population and Development. She holds a Ph.D. in Statistics and Demography from Princeton University and is a graduate of the Universidad Nacional Autónoma de México (UNAM).

#### **Course assignments:**

- Three weekly quizzes accounting for 20 points each (60 per cent of the grade in total): After each of the first three sessions of the course, each student will respond to a short quiz in writing. The completed quiz will be sent to the instructor and to the teaching assistant via e-mail by the due date indicated at the bottom of each quiz.
- One final essay accounting for 40 points (40 per cent of the grade): Each student will submit a 1000 word essay on one of the topics proposed by the instructor at Session 3. The deadline for submission of the essay is May 5, 2014.
- **Deadlines:** Late submission of quizzes or essays will not be accepted and points for that assignment will be lost unless special circumstances are discussed *in advance of the deadline* with the instructor.
- **Final grade:** The total number of points that a student may get is 100. The course is graded on a Pass/Fail basis. The minimum number of points necessary to get a Pass is 60.

#### Readings:

There is no general textbook containing the material that will be covered by the course. The instructor will provide notes specifically prepared for some sessions. For other sessions, one or two articles will be required reading. Students are expected to read those articles before the session.

#### **Course Outline:**

#### **Session 1**: <u>The components of population growth and the history of population dynamics.</u>

The basic equation of population change. Data sources and limitations. Age-specific measurements. History of population change at the global and regional levels, with emphasis on trends since 1950.

### United Nations, Economic and Social Council, "World Demographic Trends", 2014 Required reading: Sections I and II Suggested additional reading: III and IV

#### **Session 2**: *Future population change: What population projections can tell us.*

The basics of population projections made using the population-components method. How assumptions about future trends are made. The results of the United Nations projections and their implications. Opportunities deriving from population the demographic dividend and population ageing. Challenges still in the horizon and the uncertainty surrounding future prospects.

# United Nations, Population Division, *Seven Billion and Growing: The Role of Population Policy in Achieving Sustainability*, 2011.

Required reading: Sections I and II.

United Nations, World Population Prospects: The 2012 Revision, Highlights and Advance Tables. Required reading: Sections I to IV.

#### **Session 3**: *The analysis of the impact of population on the environment: A historical perspective.*

A review of the evolution of approaches to analyze the impact of population on the environment. The IPAT model relating population, affluence and technology to the environment. The modeling of population in the use of IPAT. The integration of population in models of climate change. The evolution of thinking regarding the interrelations of population and economic growth.

## United Nations, Population Division, Seven Billion and Growing: The Role of Population Policy in Achieving Sustainability, 2011.

Required reading: Section III.

O'Neill, Brian et al. Demographic change and carbon dioxide emissions. *The Lancet*. Required reading.

Bloom, David et al. The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change. RAND. Suggested reading.

#### **Session 4**: <u>Addressing population and the environment at the global level.</u>

Review the history of population and the environment in the United Nations. Why have they been treated separately? Why havepopulation and population dynamics been generally absent from debates on sustainable development and climate change? Why has the reduction of population growth never been a goal for the international community? Review the relevance of the human-rights approach. Are population issues mainly related to human rights or are they intrinsically linked to the possibility of attaining sustainability?

Zlotnik, Hania (2009). Does population matter for climate change? In Population Dynamics and Climate Change, Jose Miguel Guzman et al, eds.

Required reading.

United Nations, Population Division, *Seven Billion and Growing: The Role of Population Policy in Achieving Sustainability*, 2011.

Required reading: Section V.

Session 5: The policy arena: Do population policies matter?

What are population policies? Can governments change population dynamics through proactive policies? What do we know about the causes of fertility decline? Has family planning been successful? Should family planning programs be pursued? What is the best contraceptive: family planning or development?

Donaldson, Peter and Ami Ong Tsui, " The international family planning movement " in Beyond the Numbers, Laurie Ann Mazur, ed. (1994). Required reading

Cleland, John et al. "Family planning: The unfinished agenda", *The Lancet* Required reading