



Environment Europe

# Oxford Winter School in Ecological Economics 2014

25-29 August, 2014

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## DESCRIPTION

This course explores the cutting edge methods and policy applications in ecological economics, an interdisciplinary field emerged in response to global sustainability crisis. With a clear sustainable development focus, it draws on the expertise of a range of disciplines: economics, ecology, physics, environmental sciences, sociology, psychology, complex systems theory, etc. to address the current challenges: climate change, biodiversity loss, resource depletion, water shortages, social cohesion and achieving sustainability. Ecological economics has been critical of the dominant approaches to decision making, namely cost-benefit analysis, the use of GDP as a key economic progress measure and the limits of the economic models not taking into account resource and environmental constraints. ‘Green Economy’ and ‘Beyond GDP’ movements are inspired by the ideas proposed by ecological economists.

The course will address three key elements of the new economy transformation: industrial ecology approach, multiple criteria methods for decision making and new tools for measuring progress. In the theoretical part, it will analyse the concept of industrial ecology, which highlights the importance of intersectoral flows of matter and energy required for the production of the goods and services. The method of environmentally extended input-output analysis, actively used for policy applications around the world, will be introduced to illustrate this approach. Next, it will explore the system of tools for decision making based on multicriteria methods, used for policy appraisal, which applied at different levels could shift the patterns of decisions making towards more socially equitable and more environmentally friendly as well as economically sound decisions. Acting as a bridge to the policy module, the final theoretical session will criticise existing approaches to measure macro sustainability performance and will introduce new conceptual tools for the assessment of progress.

In the policy module the achievement of sustainability will be linked with policy regulation of social, economic and ecological systems. Here, a spectrum of sustainable development policy instruments will be discussed with cases of their applications in various parts of the world. A sustainable city model will be introduced to stimulate a cross-cultural and an interdisciplinary policy discussion. Policies for stimulating renewable energy, resource efficiency, and recycling will be explored in considerable detail in the concluding session of the course.

## **OBJECTIVES**

The course aims will equip the students with advanced understanding of the methodology and current policy applications of the new interdisciplinary field of ecological economics. The participants will get an experience of sustainability assessment at the macro scale and the policies necessary to stimulate the transition to the green economy. All those taking the option will be expected to become familiar with a defined set of readings and issues. The students will be encouraged to present their projects. The paper covers the following topics divided into two modules, Theoretical and Applied:

### **Theoretical Module**

1. The Economic System and the Environment: Themes and Methods
2. Ecological-Economic Modelling: Input-Output Analysis for Sustainability
3. Multi-Criteria Decision Aid for Sustainable Development
4. Assessing Progress towards Sustainable Development: A Multidimensional Approach
5. Sustainability Across the World: USA, Brazil, China, Russia, UK, Germany, France

### **Policy module**

6. Sustainable Development Policy Instruments: Criteria of Success
7. Sustainable Cities: Cross-Cultural and Interdisciplinary Perspective
8. Renewable Energy : Keys to Success
9. Ecological Consciousness: Values, Attitudes and Decision Making
10. Simulations Game

## **TARGET AUDIENCE**

The course is aimed at academics, PhD students, government officials, representatives of international organizations, NGO representatives.

