

The course strengthened my capacity in modeling and analysis, especially how to analyze several development sectors under one framework.

– Participant from Togo

The course encouraged us to think critically, to deliberate with others, and to take an active part in learning. We had meaningful involvement in the creation of a model for a virtual country, which made it easy to understand development planning and modeling as well. It is exactly what is called 'learning by doing'.

– Participant from China



## SYSTEM DYNAMICS–BASED DEVELOPMENT PLANNING COURSE

DECEMBER 19, 2016 – FEBRUARY 3, 2017 ■ ONLINE

MAY 2 – MAY 31, 2017 ■ BERGEN, NORWAY



**Our increasingly complex and interdependent world demand development experts who can think systemically and use dynamic analytical tools to inform public policy decisions and strategies.**



Through case studies and practical exercises, Millennium Institute's System Dynamics-based Development Planning Course equips development professionals with the knowledge and skills to effectively understand, map, and analyze complex national and global development challenges, and to determine the best approaches to address them using a systems perspective. For policy analysts who are tasked with integrating the Sustainable Development Goals (SDGs) into the national development plan, this course is a must.

The course is based on the Threshold 21 framework, developed by the Millennium Institute (MI). This framework has received favorable evaluations from UNDP and UNEP, and has been used for comprehensive planning by governmental institutions of several developing and industrialized countries, private corporations, and advocacy/civil society groups.

The course gives participants unparalleled access to MI top modelers and University of Bergen's (UiB) world-renowned faculty in System Dynamics. It is the only development-focused System Dynamics course, and affords participants learning interactions with other professionals from around the globe, including the UiB's master's and doctoral studies students.

## Admission

The course is open to development professionals, especially policy advisors/analysts, and implementation and evaluation specialists from government agencies, research institutes, advocacy groups, private foundations, and other international development agencies.

Applicants first enroll in the online module of the course. Only applicants who successfully complete the online module will be admitted to the second (optional) module of the course, which will take place at University of Bergen, Norway.

Application and additional information, including complete program description, information on fees, accommodation, and travel is available on our website.

## COURSE MODULES

### INTRODUCTION TO SYSTEM DYNAMICS FOR DEVELOPMENT PLANNING

This 40-hour online module introduces participants to the T21 model and application of System Dynamics (SD) principles to sustainable development planning. The module covers the basic dynamics underlying various development problems, the fundamental assumptions of the T21 model, and the most important principles of model building.

**December 19, 2016 - February 36, 2017 | US\$ 800 | 5 ECTS**

#### Learning Outcomes

Participants learn the basic principles of modelling and simulation for analyzing complex development problems and develop basic modeling skills in the Vensim modeling software.

### MODEL-BASED SOCIOECONOMIC PLANNING

This 4-week module introduces participants to SD-based models designed for studying and managing complex, dynamic socioeconomic problems in developing countries. Participants use planning models as an aid to identifying the structural origin of such problems, and designing and evaluating policies for their alleviation in an integrated manner. While the focus is on problems in developing countries, some of the model-based insights also apply to problems faced by industrialized countries.

**May 2 - 31, 2017 | US\$ 3,000 | 10 ECTS**

#### Learning Outcomes

Participants will know the basic concepts of model-based national development planning. They gain extended knowledge about the application of the SD method to the identification and solution of dynamic problems in the socioeconomic and environmental domains using modelling, simulation and analysis. Participants also gain knowledge about the intimate relationship that exists between the structure and behavior of a system. They gain knowledge about the significance of a robust strategy development, the associated policy design and the resulting decision making (i.e. management) in national contexts, in particular in multi-sector and multi-disciplinary domains.