

## **High Level Training Workshop**

### **Asian MetaCentre for Population and Sustainable Development Analysis**

**The College of Population Studies at Chulalongkorn University**

**Bangkok, Thailand**

**November 13-24, 2000**

### ***Course Outline***

November 13th: **Introductions**

1. The College of Population Studies at Chulalongkorn University
2. Asian MetaCentre for Population and Sustainable Development Analysis
3. International Institute for Applied Systems Analysis
4. Introduction to the Workshop and Proposal Writing
5. Introduction to Framework of Population and Sustainable Development Modeling
6. Introduction to IIASA PDE (Population/Development/Environment) Modeling Concepts.
7. Introduction to the VENSIM dynamic modeling software and VENSIM structure.
8. An Example of a Very Simple Model (Wonderland).

Groups Meet in the Afternoon to Discuss the Structure of their Proposals.

## November 14th: **Basic VENSIM With PDE Examples**

Participants will learn the basics of making dynamic models and work through the World3 1991 Model. This model is the foundation of the books “The Limits to Growth” and “Beyond the Limits”.

Among other things, participants will learn how to:

1. sketch models on the screen,
2. import data and export results,
3. use look-up tables to represent complex functional forms,
4. use subscripted variables, and
5. integrate population, development, and environment in a single framework.

Groups Meet in the Afternoon to Begin Work on The Structure of Their Proposals and Models.

## November 15th: **Presentation, Discussion and Writing Day 1**

1. Groups Meet in the Morning to Outline Their Proposals and Their Models.
2. Outline of Model is Programmed in VENSIM.
3. Groups Present Their VENSIM Models to the Participants for Discussion and Comment.
4. Groups Write the First Drafts of Their Proposals Incorporating the Suggestions Made By the Participants.

November 16th: **Introduction to Population Modeling in VENSIM**

Participants Will Learn How to Make Multistate Population Projections. We will Begin the Discussion of Models of Migration.

In the Afternoon, Participants Will Begin Putting More Complete Models of Population Change into Their Proposals.

November 17th: **Introduction to Environment Modeling in VENSIM**

Participants Will Learn How to Make Models of Various Environmental Processes. In Particular, We Will Discuss IASA Work on Water and on Air Pollution. Additional Environmental Variables Will Be Discussed According to the Interests of the Participants.

In the Afternoon, Participants Will Begin Putting More Complete Models of the Environment into Their Proposals.

November 20th: **Introduction to Sustainable Development Modeling in VENSIM**

Participants Will Learn Various Approaches to Sustainable Development Modeling. These will Include Simple Economic Models and Other Frameworks Within Which to Link Population and the Environment. We Discuss the Importance of Including Policy Instruments.

In the Afternoon, Participants Will Begin Linking Population and the Environment Through a Sustainable Development Interface.

November 21st: **Presentation, Discussion and Writing Day 2**

In the Morning, Participants Will Get Together in Groups and Complete Adding the New Elements Into Their Models.

This will be Followed by Presentations to All the Participants. Among Other Things, We will Focus on Pieces that Still Need to be Completed.

Groups Will Write Second Drafts of Their Proposals.

November 22nd: **Filling In the Missing Pieces**

We will Discuss How to Construct the Missing Pieces of the Models.

In the Afternoon, Participants Will Begin Putting the Missing Pieces into Their Models.

November 23rd: **Writing the 3rd Draft of the Proposal**

Groups will Write the 3rd Drafts of Their Proposals.

November 24th: **Final Presentations and Discussions**

Groups Will Present Their Proposals and Their Models. Each Proposal Will be Discussed in Detail. We will Identify What Work Still Needs to be Done. We will Establish Timelines for the Completion of the Proposals.