

Integrated Assessment of Agricultural Systems (IAAS) for a Sustainable Development

September 5th to 10th 2010
IAMM, Montpellier, France

Organized by: CIHEAM-IAMM (France), Montpellier Supagro (France) and SEAMLESS Association (The Netherlands)

Chairs: Hatem Belhoucette (IAMM), Jacques Wery (Montpellier SupAgro) and Martin van Ittersum (SEAMLESS Association, Wageningen University)

GENERAL INFORMATION:

This course on "Integrated Assessment of Agricultural Systems" will be organized by Montpellier SupAgro and IAM-Montpellier in collaboration with the SEAMLESS association (www.seamlessassociation.org/), from 5-10 September 2010. It will be organized in conjunction with the Agro2010 congress organized in the same place from August 29 to September 3, 2010 (www.agropolis.fr/agro2010/index.html).

• Course objectives and set up.

The objectives of the course are:

1. To present **concepts for integrated assessment** of agricultural systems.
2. To gain theoretical and practical understanding of the **methods, models and tools** used in integrated assessment of agricultural systems.
3. To understand conceptually and practically how integrated assessment and modelling can support **ex-ante impact assessment and decision making processes**.

In the course, various research tools (including the ones recently developed in the SEAMLESS project) are used as an example to present how concepts and models (conceptual and numerical) can be integrated to assess complex agricultural systems and sustainable development. The course is problem orientated, so all lectures are linked to practical applications, such as the Water Framework Directive, Trade Liberalization and more especially in Africa liberalisation of commodity prices (for example rice) and the impact of the increase of interest rates for credit on farm sustainability. Models used for these practical applications will be presented and discussed, but gaining detailed understanding of specific components is not the objective of this course. At the end of the course participants will understand how an integrated research framework and its individual components contribute to integrated assessment of a problem and how this may contribute to decision-making.

Besides a series of plenary presentations by speakers, a number of interactive activities will allow participants to discuss general and detailed issues with the specialists and other participants. Participants are expected to actively contribute to the course by leading discussions and presenting outputs of parallel workshop sessions.

- **Group work and practical**

The aim of the group work is mainly to discuss the topics that are presented during the day in a smaller group. Smaller groups will enable more interaction. During the week the group of participants will also have a common goal, i.e., to set up and interpret a possible application (from their own research or other more general problems), along which they discuss the various topics.

Group work always refers to work in groups of 4-6 participants, while practicals refer to common exercises, which can be done individually or in small groups.

In the one week course there is relatively little time to go into detail in the models. Information and some pre-cooked scenarios needs to be available, so participants can finalize a case study (at least conceptually) without having to do detailed simulation runs.

WHO CAN APPLY?

PhD students, post docs and young researchers are the target of this course. Individuals from Mediterranean and tropical countries are particularly encouraged to apply.

Participants should have experience in the field of agronomy, agri-environmental policy analysis, agricultural/environmental economics, integrated assessment or related academic fields. We expect all participants to give a 15 minutes presentation of their current work showing the link to integrated assessment, followed by a discussion in the group.

Fee: 350€, which includes working documents (papers and CD), Sunday's dinner and Monday, Tuesday, Wednesday, Thursday lunches.

PROGRAMME:

Day 1: Sunday, September 5th 2010
Evening (2h)
<ul style="list-style-type: none"> - Background and introduction of the course - General concepts on integrated assessment(1h)
Day 2: Monday, September 6th 2010
Morning (3h)
<ul style="list-style-type: none"> - How to assess the impact of policy and technological innovation using IA approach, 2 presentations: <ul style="list-style-type: none"> o Scenario-base approaches (1.5h) o Multi-agents based approaches (1.5h)
Afternoon (3h)
<ul style="list-style-type: none"> - Conceptual exercise: how to assess at farm and regional scale the impact of policy and technological innovations on cropping systems sustainability?
Day 3: Tuesday, September 7th 2010
Morning (3h)
<ul style="list-style-type: none"> - Practical illustration and exercise: Trade liberalization - G20 proposal
Afternoon (3h)
<ul style="list-style-type: none"> - APES: presentation and exercises

Day 4: Wednesday, September 8th 2010

Morning (3h)

- **FSSIM:** presentation and exercises

Afternoon (3h)

- **SEAMLESS-IF Framework:** General presentation of the three phases of Integrated Assessment with a modelling chain
- Focus on **scenario development** (participative approach): problem, scale, context, indicators, policy options, external driving forces, etc.

Day 5: Thursday, September 9th 2010

Morning (3h)

- **SEAMLESS application:** each participant use SEAMLESS platform to assess specific scenarios

Afternoon (3h)

- Example of the **nitrate directive application** using APES-FSSIM-Indicators modelling chain
- Practical exercise: **Multi-criteria and multi-scale assessment** of the nitrate directive scenario in the Midi-Pyrenees region (data analysis and conclusions)

Day 6: Friday, September 10th 2010

Only morning (3h)

- General discussion on **integrated assessment:** models, data base, typology, indicators
- Discuss concepts, model linkages, interest, link with own research;
- Course evaluation