# Impact Assessment with the CAPRI modelling system
# Training Session with a focus on environmental impacts

Bonn, 23-25th March 2009

## Aims of the session

- Understanding the role of impact assessment in European policy making
- Understanding differences between major basic economic model types in impact assessment
- Understanding the basic structure of the CAPRI model
- Understanding the concept of environmental impact assessment with CAPRI
- Understanding the concept of baseline calibration in CAPRI, interaction with stake holders
- Understanding the methodological concept of how the nitrogen cycle is modelled in CAPRI
- Being able to retrieve and analysis selected environmental indicators from CAPRI
- Being able to install a working copy of CAPRI and keep it synchronized with the master version

## Approach and prerequisites

Mix of lectures in a small group (max 12) with hands-on training
Lecturers are experienced CAPRI developers/users
Course language is English
Own laptop (Windows XP/Vista, 7 Gigabyte of free disk size, 1 GByte of RAM) required, with access to administrator account to install (in parts temporarily) required software

## Venue

University of Bonn, Institute for Food and Resource Economics
Nussallee 21, D-53115 Bonn

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# Preliminary agenda

## *Monday 23th*

***(0) Welcome to all participants and presentation round (9:00 – 9:30)***

(1) Technical set-up (9:30 – 11:00)

- Installation of Java RE, TortoiseSVN and GAMS IDE on laptops
- First "check out" and test of CAPRI

*Coffee Break (11:00-11:30)*

(2) Economic modelling 101 and current model applications (11:30 – 13:00)

- Basic concepts of economic modelling and model calibration, model types
- Overview of agro-economic models and their role in policy impact assessment: legal background, research projects and tools, experiences from past CAPRI applications
- Future avenues, the interaction between models: iMAP, LEI family of models, SEAMLESS, SENSOR

*Lunch Break (13:00-14:00)*

(3) The basic structure of CAPRI (14:00-15:30)

- COCO as the "CAPRI ontology"
- The supply and market models revisited
- Baseline construction and scenario impact analysis
- Hands on: Retrieving time series and base year data with the GUI

*Coffee Break (15:30-16:00)*

(4) Environmental impact assessment with CAPRI (16:00-17:30)

- Endogenous indicators vs. half-passive indicators: CAPRI at the intensive and extensive margins
- Hands-on: use of the CAPRI exploitation tools: data extraction from the GUI

## *Tuesday 24th*

(5) The CAPRI baseline (9:00-11:00)
- Introduction of expert data: the case of DG-AGRI and EDIM projections
- Trend analysis vs. policy shocks
- Why model results might deviate from statistics?
- Hands-on: comparing base year and baseline data

*Coffee Break (11:00-11:30)*

(6) CAPRI at the intensive margin: nitrogen (11:30-13:00)
- The nitrogen cycle in CAPRI (feeding and fertilising activities)
- Combination of farm gate and soil balance approach
- N-accounting taking into account imports and exports (Leip/Weiss)?
- Hands-on: Generating maps for different elements of the nitrogen balance

*Lunch Break (13:00-14:00)*

(7) Scenario impact analysis I (14:00-15:30)
- Work in small groups: analyzing selected aspects of dairy reform scenarios, preparation of presentation based on tables/graphs/maps from the GUI
- Presentation of the results
- Evaluation

*Coffee Break (15:30-16:00)*

(8) Scenario impact analysis II (16:00-17:30)
- Work in small groups: analyzing selected aspects of EU biofuel mandates scenarios, preparation of presentation based on tables/graphs/maps from the GUI
- Presentation of the results
- Evaluation

## *Wednesday 25th*

(9) The environmental layer of CAPRI at the extensive margin (9:00-11:00)

- Spatial downscaling as a tool for environmental impact assessment
- CAPRI-GIS link
- Hands-on: working with the results of the downscaled layer
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*Coffee Break (11:00-11:30)*

(10) Environmental model linkage with CAPRI (11:30-13:00)

- The CAPRI-DNDC model link (Leip?)
- Meta modelling as tool for model linkage (Britz)
- Hands-on: Comparing scenario results at 1x1 km grid level
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*Lunch Break (13:00-14:00)*

(11) Session wrap-up (14.00-15:30)

- Any unresolved issued
- How to keep a local copy up-to-date with the trunk
- Meta data information and code documentation
- Contributing to CAPRI
- Evaluation of the session

*Closure*