



# **Policies and Public Choices in the Agricultural and Food Sectors**

Organized by

Mediterranean Agronomic Institute of Montpellier

# Policies and Public Choices in the Agricultural and Food Sectors

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## **Objectives**

The aim of this Master is to train specialists in the field of "Policies and public choices in the agricultural and food sectors".

In this field, economic globalisation and the changes having occurred during these last ten years in the role of the State, in its privileges, its modes of intervention and of functioning, have entailed the development of doctrines, researches and analyses dealing with public economy.

These evolutions have also made obvious the need for new skills likely to contribute to: the elaboration of agricultural and food policies; the evaluation of public choices in this field; refereeing between the actors of the national food systems; and the preparation of international or regional trade negotiations.

This training course leads to career opening in various administrations (ministries of Agriculture, of the Environment, of the Economy and Finance, of International Trade), R&D departments, farmers' and agri-food associations and even in big firms.

Being a training programme through Research, the Master of Science in "Policies and public choices in the agricultural and food sectors" can be pursued by a doctorate, in collaboration with the *Ecole Doctorale* 'Economics and Management' of the *Universit e de Montpellier I*.

# Part 1

## Postgraduate specialization course

This course is organized in 7 sections, plus a section dedicated to upgrading and one dedicated to research methodology (60 ECTS).

- Prerequisites**
- Upgrade in economics and management (microeconomics, accounting, financial analysis and statistics)
  - Upgrade in computer use (Word, Excel, PowerPoint, Internet)
  - Introduction to documentary research

- Section 1**      **FOOD SYSTEMS ANALYSIS**  
This course provides conceptual tools and methods (theory of systems, competitive analysis, industrial economy) allowing to grasp the following:
- the network of actors: production, distribution, catering
  - consumers' food behaviour
  - the international dynamics of food systems

- Section 2**      **FOOD CHAINS ANALYSIS, PUBLIC CHOICES AND FOOD SECURITY**  
Acquisition of approaches and methodological tools allowing to master different uses of the food chain approach, to analyse the functioning of agri-food chains and markets, mainly in the actual context of economic liberalisation.
- Introduction to the analysis of the economic approaches of public choices in fields concerned with food and agriculture.
  - Openness towards other disciplines' approaches (political philosophy, political sciences).

- Section 3**      **MARKETS, POLICIES AND NEGOTIATIONS**  
Main analytical questions regarding public choices, international markets and collective international negotiations. Case analysis and linkage between the three types of problems.

- Section 4**      **MODELLING AND AGRICULTURAL POLICIES**  
Mathematical programming: principles and applications at farm and agricultural levels. Partial and general equilibrium modelling.

- Section 5**      **FOOD POLICIES, RISKS FOR SOCIETIES, INSTRUMENTS**  
Understanding and analysis of food policies applied to developed or developing countries, as well as their integration within the global economic policies. Critical studies dealing with the risks for sustainability and health and the various conceptual approaches. Instruments used for consumption enhancement and their economic analysis; and instruments aiming at limiting consumption and their economic analysis. The linkage between food policies and macroeconomic policies through the use of modelling.

- Section 6**      **PUBLIC POLICIES AND INTERNATIONAL RELATIONS: WTO NEGOTIATION SIMULATION**  
This course provides the knowledge and tools required for grasping public policies, markets evolution and international co-operation mechanisms (negotiations).

- Section 7**      **PREPARATION OF THE PROPOSAL FOR THE MASTER THESIS**
- Research methodology
  - Written research proposals

## TRAINING SEQUENCE

<b>Prerequisites</b> (0 ECTS) September	<ul style="list-style-type: none"><li>- Upgrade in economics and management</li><li>- Upgrade in computer use</li><li>- Introduction to documentary research</li></ul>
<b>Section 1</b> (6 ECTS) October	<b>FOOD SYSTEMS ANALYSIS</b> <ul style="list-style-type: none"><li>- Introduction to the Mediterranean region</li><li>- Actors, their behaviour and the dynamics of food systems (6 ECTS)</li></ul>
<b>Section 2</b> (6 ECTS) November	<b>FOOD CHAINS ANALYSIS, PUBLIC CHOICES AND FOOD SECURITY</b> <ul style="list-style-type: none"><li>- The analysis of agri-food chains (3 ECTS)</li><li>- Public choices and food security (3 ECTS)</li></ul>
<b>Section 3</b> (6 ECTS) December	<b>MARKETS, POLICIES AND NEGOTIATIONS</b> (6 ECTS) <ul style="list-style-type: none"><li>- International markets of agriculture and food products</li><li>- Agricultural, food, agro-environmental and rural development policies</li><li>- International negotiations on agriculture and multilateral environmental agreements</li></ul>
<b>Section 4</b> (6 ECTS) January	<b>MODELLING AND AGRICULTURAL POLICIES</b> (6 ECTS) <ul style="list-style-type: none"><li>- Mathematical programming applied to farm management</li><li>- Sector-based models and application to policy impact analysis</li><li>- Calculable general balance models</li></ul>
<b>Section 5</b> (6 ECTS) February	<b>FOOD POLICIES, RISKS FOR SOCIETIES, INSTRUMENTS</b> (6 ECTS) <ul style="list-style-type: none"><li>- Food policies, risks for societies and conceptual approaches</li><li>- Food policy instruments</li><li>- Models for policy impacts analysis</li></ul>
<b>Section 6</b> (6 ECTS) March	<b>PUBLIC POLICIES AND INTERNATIONAL RELATIONS: WTO NEGOTIATION SIMULATION</b> <ul style="list-style-type: none"><li>- International regulation of public policies in the field of trade and the environment (3 ECTS)</li><li>- WTO negotiation simulation (3 ECTS)</li></ul>
<b>Section 7</b> (24 ECTS) April and May	<b>PREPARATION OF THE PROPOSAL FOR THE MASTER THESIS</b> <ul style="list-style-type: none"><li>- Research methodology (6 ECTS)</li><li>- Written thesis proposal (18 ECTS)</li></ul>

## Detailed course description

### Prerequisites

#### **Economics and management**

Reminder of the basic fundamentals in microeconomics, management and statistics. Lectures and exercises.

#### **Computer use**

Presentation and exercises allowing the use of common software (Word, Excel, PowerPoint) and the Internet.

**Introduction to documentary research**, allowing the use of different documentary databases dealing with agricultural and rural development (CIHEAM-IAMM, Agropolis, CAB, FAO... databases).

### Section 1

#### **FOOD SYSTEMS ANALYSIS**

##### **Food systems analysis**

The general objective is to supply the necessary concepts and methods for the understanding and for the analysis of the food system and its dynamics and their application to the different agri-food chains. Through a method based on systemic approach, economic analysis and management sciences, this course describes the structure and analyses the functioning of the agri-food complex by laying further stress on the following points:

- the tools for the macroeconomic analysis of food systems,
- the basic concepts and tools required for the analysis of food consumption and of consumers' behaviour,
- the actors of the systems, their characteristics and their strategies,
- industrial economy and the behaviour of agri-food firms.

Evaluation procedure: **classroom examination and group work.**

### Section 2

#### **FOOD CHAIN ANALYSIS, PUBLIC CHOICES AND FOOD SECURITY**

##### **Unit 1: The analysis of agri-food chains**

The food chains approach lies at the basis of the formation and development of the agri-food economy taken as a discipline, since it allows to analyse and explain the behaviour and strategies of the various economic agents intervening at the successive stages of the production, circulation and consumption process of agricultural and agri-food products. The richness of the food chain approach certainly lies in its capacity to grasp the increasing complexity of reality: the food chain represents a relevant space for the design and implementation of strategies; on a regional and/or local scale, it represents a very fruitful context for co-operation within the field of territory development. This unit aims at three types of objectives which will allow participants:

- to identify an agro-food chain and analyse its operating modes;
- to understand the mechanisms of interdependence, the balance of power, the conflicts and stakes characterizing the various economic agents they are composed of;
- to understand the transformations of agri-food chains in relation to the development process, as well as the heterogeneity and specificities of agri-food chains in developing countries;
- to be aware of the main methods used for the analysis of food chains, particularly the methodological contributions from industrial economics and spatial economics.

### **Unit 2: Public choices and food security**

- Introduction to the analysis of economic approaches in the field of public choices related to agriculture and food.
- The economists' contribution: normative economics, economic analysis, political economy.
- Openness to approaches relevant to other disciplines (political philosophy, political sciences).
- Significant examples of public policies

**Evaluation procedure:** individual bibliographical work

## **Section 3**

### **MARKETS, POLICIES AND NEGOTIATIONS**

#### **Markets, policies and negotiations**

The objective is to provide basic knowledge and capacity for critical analysis regarding the three aspects of political economy concerning the agricultural issue *stricto sensu*. This course includes lectures, case analyses, group work and a simulation game on an agricultural negotiation. Courses serving as a link between the three sections ensure the problematics continuity of these three fundamental parts of public policies.

This course is thus structured around three parts.

#### **1) The 1st part deals with “markets”**

Based on the case analysis of two large markets of agricultural produce (wheat, fruit and vegetables), the course develops the main analytical problems concerning the analysis and regulation of international markets: competition and competitiveness, segmentation, protection, oligopoly and oligopsony effects.

#### **2) The second part deals with “policies”**

Based on a thorough analysis of the common agricultural policy and European mechanisms concerning rural development, this part also takes as counterpoint an agricultural policy in a Mediterranean third country. Special attention is paid to environmental questions and their incidence on public choices in rural, agricultural and food concerns.

#### **3) The third part deals with “negotiations”**

Based on the analysis of WTO and its different bodies functioning, this part proposes a simulation game on negotiation around the constitution of positions about particular ‘Dossiers’ elaborated during group work.

**Evaluation procedure:** Classroom examination and ‘Dossiers’ elaborated during group work.

## **Section 4**

### **MODELLING AND AGRICULTURAL POLICIES**

For this entire section, the course consists for the main part of computer based classwork.

#### **Unit 1: Mathematical programming applied to farm management**

Mathematical programming models hold a particular place in agricultural economy, within the framework of analyses at farm level, in the case of a given region or of the farming sector in general. They are particularly used in studies about the impacts of agricultural policies.

This course allows students to build mathematical programming models representative of farms and of the farming sector, and to master the GAMS (General Algebraic Modelling System) language.

It is structured around three parts :

- basic principles of mathematical programming and construction of a simple model of farm management functioning;
- risk modelling and dynamic modelling;
- construction of models representing actual cases, calibration and validation.

**Evaluation procedure:** Examination taking place in the computers room

### **Unit 2: Sector-based models and application to policy impact analysis**

This course aims at training students in the construction of mathematical programming models representative of the agricultural sector. It implies knowledge of the GAMS language (to be further studied).

It comprises the following two parts:

- construction of a sector-based model: aggregation, supply/demand, calibration;
- presentation of models used for the analysis of the impacts of changes affecting policies.

**Evaluation procedure:** Examination taking place in the computers room

### **Unit 3: Calculable general balance models**

This course introduces to calculable general balance modelling by means of the GAMS. Computable general equilibrium models (MEGC) constitute a tool allowing a simulation of the impact of structural shocks and designed for public decision-making. The first part of the course will bear on the construction of the matrix of social accounting which constitutes the empirical basis of EGC (computable general equilibrium) models, as well as on models calibration, the writing of the model strictly speaking and simulations. In a second stage, the possible extensions of the basic model allowing to deal with a particular problem (e.g., agricultural policies reform) are presented.

**Evaluation procedure:** examination taking place in the computers room.

## **Section 5**

### **FOOD POLICIES, RISKS FOR SOCIETIES, INSTRUMENTS**

#### **Unit 1: Food policies, risks for societies and conceptual approaches**

This unit presents various critical studies about the risks for sustainability and health likely to result from undernourishment and malnutrition. The various concepts will be dealt with and criticized and the major theories presented. The objective is to provide adequate basic knowledge to those concerned by this field and to encourage their critical appreciation.

**Evaluation procedure:** MCQ (multiple choice questions)

### **Unit 2: Food policy instruments**

A presentation of the various traditional instruments used for consumption enhance will be made, as well as an analysis in terms of the impacts on health, on the improvement of the food situation, and on local agriculture and the economic costs. New instruments aiming at limiting the consumption of certain foodstuffs and their economic analysis will also be presented.

**Evaluation procedure:** Application exercises

### **Unit 3: Models for policy impact analysis**

This course is meant as a tool allowing to master the analysis of an overall policy impact on the food situation: e.g., the MATA model (analysis of the impacts of the monetary policy on the food situation in West Africa).

**Evaluation procedure:** Examination taking place in the computers room

## **Section 6**

### **PUBLIC POLICIES AND INTERNATIONAL RELATIONS: WTO NEGOTIATION SIMULATION**

#### **Unit 1: international regulation of public policies in the field of trade and environmental**

The aim of this course is an in-depth study of the functioning of the international markets for farm produce and of the mechanisms of the international regulation of public policies at trade and environmental levels.

This course consists of two parts:

- Markets: genesis and current functioning of markets for agricultural and food products, on the basis of a long historical background and of contemporary examples.
- International regulations: this part includes the presentation of the theoretical referentials of the international political economy and how to deal with current events in the field of international relations. The historical background and the functioning of governance bodies concerned with commercial and environmental questions (WTO and big agreement plans on the environment) will be dealt with.

**Evaluation procedure:** individual reports

#### **Unit 2: WTO negotiations simulation**

This course aims, through a simulation game of WTO negotiations, at an in-depth study of the mechanisms and procedures for international negotiations taking place at WTO. It also provides knowledge about the topics debated and their implications on various policies and on the economic development. Several 'Dossiers' will be constituted by the different groups representing the actors involved in the negotiation, thus allowing the control of the various delegations' position. This simulation game will last four days.

**Evaluation procedure:** collective reports.

## **Section 7**

### **PREPARATION OF THE PROPOSAL FOR THE MASTER THESIS**

#### **Research methodology**

This section will last throughout the whole curriculum. It is based on a seminar and class work: It is comprised of:

- Documentary research and bibliographical analyses
- Epistemology and research methods
- Place of the trainee's research project within the research scope relevant to public economy and the economic policy

#### **Written thesis proposal**

## Part 2

### Master of Science course

#### Research thesis and defence (60 ECTS)

Achievement of a research work within a research team of the IAMM or an associated laboratory including:

- Field work
- Achievement of a research thesis
- Defence of the thesis before a jury composed of teachers/researchers

#### INDICATIVE MASTER THESES ALREADY ACHIEVED IN “POLICIES AND PUBLIC CHOICES IN THE AGRICULTURAL AND FOOD SECTORS”

**Titre** : Politique Agricole et changement structurel des exploitations agricoles : une application de la méthode des chaînes de Markov non stationnaires à la région Midi-Pyrénées (2006)

**Auteur** : BEN ARFA Nejla (Tunisie)

**Directeur de thèse** : Guillermo FLICHMAN

**Titre** : Analyse économique de politiques publiques pour la gestion durable des eaux souterraines : le cas de l'aquifère de la Mancha Occidentale (Bassin du Guadiana, Espagne) (2007)

**Auteur** : BLANCO GUTIERREZ Irene (Espagne)

**Directeur de thèse** : Guillermo FLICHMAN

**Titre** : Analyse comparative des indicateurs pour le développement durable en Europe et Sud-Est (2005)

**Auteur** : FAMA Mirela (Albanie)

**Directeur de thèse** : François LERIN

**Titre** : Contribution à l'analyse de la compétitivité des entreprises agroalimentaires marocains face aux défis de la libéralisation des échanges. Cas de l'agro-industrie laitière (2007)

**Auteur** : KASMI Outman (Maroc)

**Directeur de thèse** : Abdelhamid BENCHARIF

**Titre** : Proximité, technopôle et dynamique industrielle : quel effet sur l'activité d'innovation des entreprises agroalimentaires de la Wilaya de Béjaïa ? (2008)

**Auteur** : SAHI Lamia (Algérie)

**Directeur de thèse** : Abdelhamid BENCHARIF

**Titre** : Les impacts de l'introduction de la conditionnalité des aides de la PAC – Application aux grandes cultures, région des Midi-Pyrénées (2005)

**Auteur** : SIMO RAMIRO Aranzazu (Espagne)

**Directeur de thèse** : Guillermo FLICHMAN

**Titre** : Les interventions de la puissance publique affectant la production agricole et ses effets sur les paysages – Applications à la zone montagne sud du département des Vosges (2006)

**Auteur** : TIGROUDJA Farid (Algérie)

**Directeur de thèse** : Michel PETIT

## ACADEMIC STAFF WITHIN THE MASTER OF SCIENCE “PUBLIC CHOICES IN THE AGRICULTURAL AND FOOD SECTORS”

### CIHEAM-IAMM

- **BENCHARIF** Abdelhamid, Docteur en Economie, enseignant-chercheur CIHEAM-IAMM
- **EL HADAD** Fatima, Chargée de recherche CIHEAM-IAMM
- **FLICHMAN** Guillermo, Docteur en Economie, HDR, professeur-associé CIHEAM-IAMM
- **ILBERT** Hélène, Docteur en Sémiologie, enseignant-chercheur CIHEAM-IAMM
- **JACQUET** Florence, Docteur en Economie, HDR, enseignant-chercheur CIHEAM-IAMM
- **LERIN** François, Docteur en Economie, enseignant-chercheur CIHEAM-IAMM
- **LOUHICHI** Kamel, Docteur en Economie, chargé de recherche CIHEAM-IAMM
- **MONTAIGNE** Etienne, Docteur en Economie, HDR, enseignant-chercheur CIHEAM-IAMM
- **OBERTI** Bénédicte, Chargée de recherche CIHEAM-IAMM
- **PADILLA** Martine, Docteur en Economie, HDR, enseignant-chercheur CIHEAM-IAMM
- **PETIT** Michel, Docteur en Economie, HDR, professeur-associé CIHEAM-IAMM
- **TOZANLI** Selma, Docteur en Economie, enseignant-chercheur CIHEAM-IAMM

### Albanie

- **CIVICI** Adrian, Doyen de l'Université Européenne de Tirana, Albanie

### Finlande

- **GUILLAND-PARSY** Auli, Diététicienne

### France

- **BOISSON** Jean-Marie, Agrégé en Economie, Professeur à l'Université Montpellier I
- **BOUTONNET** Jean-Pierre, Directeur de Recherche à l'INRA / SupAgro Montpellier
- **DEYBE** Daniel, Expert à la Commission Européenne DGRTD
- **EL DAHR** Hiba, Coordinateur régional pour la région méditerranéenne FIPA
- **FAUCONNIER** Mélanie, Animatrice chargée de développement à Slow Food
- **MONTIGAUD** Jean-Claude, Directeur de Recherche à l'INRA / SupAgro Montpellier
- **PERRIER-CORNET** Philippe, Docteur en économie, Directeur de Recherches à l'INRA
- **RASTOIN** Jean-Louis, Professeur de gestion à SupAgro Montpellier

### Espagne

- **BLANCO** Maria, Docteur en Economie, Enseignante à ETS Ingenieros Agronomos, Madrid

### Tunisie

- **KHALDI** Raoudha, Agro-économiste à l'INRAT

### Turquie

- **CAKMAK** Erol, Professeur au département d'économie Middle East Technical University, Ankara