

MAINSTREAMING SCIENCE-BASED NEXUS POLICIES TO ENHANCE THE RESILIENCE AND SUSTAINABILITY OF AGRI-FOOD SYSTEMS IN THE MEDITERRANEAN AND MIDDLE EAST REGIONS

# JOINT CONFERENCE

# CIHEAM MONTPELLIER, ARAB ORGANIZATION FOR AGRICULTURAL DEVELOPMENT, AND THE AGRICULTURAL RESEARCH CENTER OF EGYPT

CIHEAM Montpellier, the Arab Organization for Agricultural Development (AOAD), and the Agricultural Research Center (ARC) of Egypt have joined efforts to organize an international seminar aimed at establishing the **first Mediterranean and Middle East Science-Policy platform** dedicated to Resilient and Sustainable Agrifood Systems. This strategic initiative will take advantage of **lessons learned from SupMed**<sup>1</sup> project at a time when the region faces unprecedented and interlinked challenges in its food, water, and energy systems, exacerbated by climate change, resource depletion, and growing socio-economic pressures.

This conference will act as a launching platform for long-term regional collaboration. It will gather **10 to 13 ministers or ministry delegates** from the region, along with researchers, civil society, technical experts, and representatives of international organizations. The goal is to lay the foundation for an evidence-based, multi-stakeholder **Think Tank** that can support **policy integration, best practices**, and **cooperation mechanisms** across the **Water-Energy-Food-Ecosystem (WEFE) Nexus**.

The event is structured into two complementary components:

- Two days dedicated to technical discussions, organized around the four key pillars: Water, Energy, Food, and Ecosystem. Each day will focus on identifying best practices, challenges, and priority policy recommendations supported by scientific evidence and field experience. Sessions will include scientists, NGO leaders, development practitioners, and civil society stakeholders.
- One day for a high-level political segment, featuring ministers and senior policymakers. This final day will serve as a policy dialogue informed by the technical segment. It will culminate in the signing of a Joint Ministerial Declaration, marking the formal establishment of the Think Tank and a shared commitment to sustainable, resilient agrifood systems.

This effort is anchored in broader regional and international initiatives, mainly CIHEAM-led projects **SUPMED** (funded by FFEM) and **DIONYSUS**<sup>2</sup> (financed by the European Commission through PRIMA), and aligns with AOAD's strategic vision to support agricultural transformation in the Arab region through integrated policy and science partnerships.

<sup>&</sup>lt;sup>2</sup> DIONYSUS (2024-2027) : is a 3-year project funded by the European Union through the PRIMA programme Section 1 under Grant Agreement no. 2341.







<sup>&</sup>lt;sup>1</sup> SupMed (2020-2025): is a 4-year cooperation project funded by The French Facility for Global Environment (FFEM). The project concerns two target areas: the Bekaa valley in Lebanon and the Governorate of Luxor in Egypt.

# CONTEXT

Ensuring food security in the Mediterranean and Middle East requires addressing multiple, interconnected challenges: rising food demand, climate variability, economic instability, increasing production costs, energy shortages, scarcity of clean and usable water resources, and the need for structural reforms in agrifood value chains. Agricultural populations, particularly smallholder farmer, face mounting pressure due to environmental degradation, water scarcity, and shifting market dynamics. At the same time, civil society is calling for more transparent, healthy, and environmentally responsible food systems.

To tackle these issues, numerous national and international initiatives have emerged, aiming to:

- Advance scientific research in developing, testing, and scaling sustainable agricultural practices such as agroecology, Integrated Pest Management (IPM), and conservation agriculture.
- Support farmers and agrifood stakeholders, including public and private extension services, NGOs, and cooperatives, in the adoption and evaluation of new agricultural innovations.
- Promote policy frameworks that facilitate the transition toward resilient and sustainable agrifood systems, ensuring better integration of WEFE (Water-Energy-Food-Ecosystem) Nexus principles.

Despite these efforts, critical questions remain:

- Are these innovative production methods adaptable to diverse rural environments across the Mediterranean and the Middle East?
- Are public and private advisory services well-equipped to facilitate the transition toward more sustainable agrifood systems?

- Do current agricultural policies and financial mechanisms effectively support the scaling of agroecological and climatesmart solutions?
- Are **farmers and consumers willing and able to adopt** these new approaches in the long term?

By establishing a dedicated Think Tank, this initiative seeks to bridge these gaps through evidence-based policy recommendations, thereby fostering collaboration among policymakers, researchers, private sector actors, and civil society.

# THE CONFERENCE OBJECTIVES

The primary objective of the seminar is to **formally establish the Science-Policy platform** through a **Joint Ministerial engagement**, committing to a **regional platform** for advancing sustainable agrifood policies and governance. The event will:

- Capitalize and discuss the adoption of SupMed project results in regions/countries other than the intervention areas. This will include examining the determinants for the sustainable adoption of adaptation strategies based on agroecological practices by various policymakers and stakeholders in the Mediterranean region and beyond.
- Facilitate high-level ministerial engagement on long-term policy commitments.
- Bridge the gap between science, policy, and civil society through evidence-based discussions.
- Define the governance structure and operational roadmap for Science-Policy platform that can lead at a mid-term to the setup of a Think Tank.
- Lay the foundation for multi-stakeholder collaboration in policy design and implementation.



# PROGRAM

# Days 1–2: Technical Segment – Scientific and Stakeholder Engagement

These two days are devoted to the four FEWE pillars, with discussions anchored in real-world experiences and science-policy exchange.

# DAY 1 - SCIENTIFIC FORUM

#### 8h00-9h00 Registration

9h00-9h30

### **WELCOME SPEECHES**

- **Dr. Adel Abd EL-Azeem,** President, Agricultural Research Center (ARC).
- ▶ **Dr. Stéphanie Bouziges-Eschmann**, Secretary General, French Facility for Global Environment (FFEM)
- ↘ Dr. Thierry Dupeuble, Director, Mediterranean Agronomic Institute of Montpellier (CIHEAM IAMM)
- ▶ **Prof. Ibrahim Adam Ahmed El-Dukheri**, Director General, Arab Organization for Agricultural Development (AOAD).

#### 9h30-11h30

## SESSION 1: POLICY MEASURES AND STATE OF PLAY: AGROECOLOGY AND THE WEFE NEXUS – CURRENT POLICIES, CHALLENGES, AND OPPORTUNITIES (2 hours)

Session objective: To assess the current policy landscape, highlight practical experiences from both the EU and North Africa, and identify actionable gaps and opportunities for strengthening agroecology and the WEFE Nexus through policy innovation.

## 1. SHORT INTRODUCTION (5 minutes)

## 2. EXPERT PRESENTATIONS (2 x 15 minutes)

▶ The Arab Organization for Agricultural Development's strategic vision on the water-food-energy nexus in the Arab region.

Speaker: Shaaban Salem (Arab Organization for Agricultural Development)

Promoting Agroecology and WEFE Nexus in North Africa: Policy initiatives, obstacles, and field realities" – A SupMed Experience Speaker: Georgios Kleftodimos (CIHEAM-IAMM)

3. WORKSHOP-STYLE ROUND TABLE DISCUSSION (60 minutes)

Chairs (4 groups): **Rachid Harbouze** (IAV-Hassan II Morocco), **Fraj Chmek** (INRA-Tunis), **Ghofrane Trabelsi** (CIHEAM-IAMM, France), **Ghizlane Echchgadda** (ENA Meknès, Morocco).

#### Key questions :

- What are the key enablers and barriers in existing policy frameworks?
- How can science inform better policies for agroecology and WEFE?
- What are context-specific needs (from SupMed experience)?

# 4. RESTITUTION & KEY MESSAGES (30 minutes)

- ▶ List of 3–5 concrete policy recommendations
- ▶ Identified knowledge-policy gaps and opportunities for regional collaboration
- ➤ Insights for Think Tank's future focus areas on agroecology and WEFE policy integration

### 12h00-14h10

#### SESSION 2: RESEARCH AND TRAINING ECOSYSTEMS FOR AGROECOLOGY & WEFE NEXUS: BRIDGING RESEARCH, HIGHER EDUCATION, AND PROFESSIONAL TRAINING FOR SYSTEMIC RESILIENCE (2 hours 15 min)

Session objective: To explore how academic research, higher education programs, and professional training initiatives can support the agroecological transition and integrated WEFE management, highlighting synergies, gaps, and future directions.

### 1. SHORT INTRODUCTION (5 minutes)

## 2. EXPERT PRESENTATIONS (2 x 15 minutes)

➤ Advancing Interdisciplinary Research for the Agroecology-WEFE Nexus Interface: Role of systems thinking, participatory methods, and integration of environmental, social, and economic research. The SupMed Experience

Speaker: Hatem Belhouchette (CIHEAM-IAMM)

▶ Education & Professional Training: Innovating education and professional training for agroecological transitions: Curricula co-creation with stakeholders, technical training for farmers and extension agents, digital learning tools. The SupMed Experience

Speaker: Tahani AbdelHakim (CIHEAM-IAMM)

### **3. REAL-LIFE EXPERIENCE – TESTIMONY** (10 minutes)

▶ The WEFE Nexus experience of the Regional Water Management Authority of Thessaly – Greece, Thanasis Markinos (TOEV, Greece)

## 4. WORKSHOP-STYLE ROUND TABLE DISCUSSION (60 minutes)

Chairs (4 groups): **Ibrahem Ramadan** (Luxor governorate), **Messaoud Lazereg** (Cread Algeria), **Ahmad Sabry** (Ministry of Agriculture and Land Reclamation), **Kamel Mostafa Elsayed** (AOAD Egypt)

#### Key questions :

- What research gaps limit the implementation of the WEFE Nexus in agroecology?
- How to strengthen collaboration between universities, vocational institutes, and farmer organizations?
- What institutional support is needed for professional capacity building?

# 5. RESTITUTION & KEY MESSAGES (30 minutes)

- ▶ Proposals for strengthening regional research collaboration
- **>** Identification of scalable training models and needed resources
- ≥ Strategic role of education in WEFE-agroecology transitions
- > Key priorities for policy, research-training alignment

## LUNCH at Safir Hotel

**COFFEE BREAK** 30 minutes

# DAY 2 - SOCIETAL SEGMENT

#### 9h00-11h15

#### SESSION 1: CIVIL SOCIETY, COOPERATIVES, AND ADAPTATION AT THE LOCAL LEVEL: THE ROLE OF NGOS, COOPERATIVES, AND LOCAL ACTORS IN AGROECOLOGY AND WEFE NEXUS TRANSITIONS (2 hours 15 min)

Session Objective: To explore how grassroots actors, especially NGOs and cooperatives, are already catalyzing agroecological adaptation, sustainable water and energy practices, and local innovation.

#### 1. SHORT INTRODUCTION (5 minutes)

#### 2. EXPERT PRESENTATIONS (2 x 15 minutes)

▶ Water-Energy-Food Nexus Approach (Saint Catherine Model).

Speaker: Kamel Mostafa Elsayed (ARAB Organization for Agricultural Development)

NGO & Community-Based Solutions: Driving agroecology from the ground up and scaling locally driven innovations and adaptation in water, energy, and food: Lessons from civil society engagement in the SupMed and Dionysus projects.

Speaker: Georgios Kleftodimos and Hatem Belhouchette (CIHEAM Montpellier).

#### **3. REAL-LIFE EXPERIENCE – TESTIMONY** (10 minutes)

➤ A Village Transformed: One cooperative's story of agroecology and climate adaptation" - A SupMed Experience

Speaker: Othman Elshaikh (Egyptian Association for Sustainable Development).

#### **4. WORKSHOP-STYLE ROUND TABLE** (60 minutes)

Chairs (4 groups): **Ghaleb Faour** (CNRS, Lebanon), **Ihab Jomaa** (LARI, Lebanon), **Shaaban Salem** (AOAD), **Messaoud Lazereg** (Cread Algeria)

Key questions:

- How to better involve local communities in WEFE-agroecology transitions?
- What role for solidarity economies, local governance, and women's associations?
- What policy and funding tools can support grassroots innovation?

#### 5. RESTITUTION & KEY MESSAGES (30 minutes)

- **Summary of ideas and suggestions for the ministerial segment**
- ↘ Insights into co-design, equity, and long-term community engagement

**COFFEE BREAK** 30 minutes

11h45-13h50

#### SESSION 2: STRENGTHENING VALUE CHAINS, TRACEABILITY, AND CONSUMERS: TOWARD SUSTAINABLE MARKETS AND INFORMED CONSUMERS IN AGROECOLOGICAL TRANSITIONS (2 hours 5 min)

Session Objective: To analyze how value chain actors, including processors, distributors, and consumers, can drive demand for agroecological products, with attention to traceability, labeling, and market incentives.

#### 1. SHORT INTRODUCTION (5 minutes)

#### 2. EXPERT PRESENTATIONS (2 x 15 minutes)

Building Sustainable Value Chains: Traceability, Certification, and Access to Markets for Agroecological Products. How to connect producers to markets with sustainability guarantees?

#### Speaker: George Vlontzos (UTH, Greece)

Role of SMEs and Retailers: From Farm to Fork: Opportunities for Small Businesses and Retailers in Agroecological Value Chains. Challenges and Innovations for Transforming Supply Chains.

Speaker: Rachid Harbouze (IAV-Hassan II, Morocco)

#### 3. WORKSHOP-STYLE ROUND TABLE DISCUSSION (60 minutes)

Chairs (4 groups): Ali Musa (AOAD), Salem Darwich (LU, Lebanon), Tahani Abdelhakim (CIHEAM-IAMM), Georgios Kleftodimos (CIHEAM-IAMM)

#### Key questions:

- How to make agroecological products attractive and accessible?
- What are the key regulatory and infrastructure needs for traceability?
- How to link consumer demand to sustainable production?

#### 4. RESTITUTION & KEY MESSAGES (30 minutes)

- ▶ Highlights and practical messages for ministers
- Shared priorities for market-side interventions and regional collaboration

LUNCH at Safir Hotel

# DAY 3 - POLITICAL SEGMENT: MINISTERIAL SUMMIT & SCIENCE-POLICY **PLATFORM LAUNCHT**

#### 8h00-9h00 Registration

#### 9h00-9h30

# WELCOME SPEECHES

- **Dr. Thierry Dupeuble**, Director, Mediterranean Agronomic Institute of Montpellier (CIHEAM IAMM).
- > Prof. Ibrahim Adam Ahmed Al Dukhairi, Director General, Arab Organization for Agricultural Development (AOAD).
- ≥ His Excellency, the Egyptian Minister of Agriculture and Land Reclamation of Egypt

#### 9h30-9h45

SUMMARY OF THE WORKSHOP OUTCOMES AND INTRODUCTION TO THE DIONYSUS THINK TANK (objectives, added value, strategic vision)

Speakers: Kamel Mostafa Elsayed (AOAD), Hatem Belhouchette (CIHEAM-IAMM)

9h45-10h15

#### INTERVENTIONS AND REMARKS BY COUNTRY DELEGATES

**COFFEE BREAK** 30 minutes

10h45-11h00

#### STRATEGIC VISION FROM PRIMA FOUNDATION: THE PRIMA **INITIATIVE AND THE WEFE NEXUS: A REGIONAL PATHWAY** TO RESILIENT AGRIFOOD SYSTEMS

Speaker: Dr. Omar M. Amawi, Deputy Director, PRIMA Foundation

#### 11h00-11h20

#### SCIENCE-POLICY PLATFORM AND THINK TANK OVERVIEW: DETAILED PRESENTATION ON THE MISSIONS, OBJECTIVES, AND STRUCTURE

Speaker: Georgios Kleftodimos (CIHEAM-IAMM)

#### 11h20-12h05

# WORKING GROUPS ON: GOVERNANCE STRUCTURE **AND STRATEGIC MISSIONS** (45 minutes)

Chairs: Tahani Abdelhakim (CIHEAM Montpellier), Kamel Mostafa Elsayed (AOAD), Ali Musa (AOAD), Ihab Jomaa (LARI, Lebanon).

#### 12h05-12h50

WORKING GROUP ON: FUNDING MECHANISMS, REGIONAL **COLLABORATIONS, AND ACTION ROADMAP** (45 minutes)

Chairs: Ghaleb Faour (CNRS-Lebanon), Ahmad Elfakih (AODA), Ahmad Sabry (MALR), Rachid Harbouz (IAV-Hassan II)

#### 12h50-13h30

#### PLENARY RESTITUTION & POLITICAL COMMITMENT

- ▶ Clear governance structure and defined missions
- ▶ Concrete roadmap with milestones
- ▶ Initial plan for donor engagement and regional cooperation

#### 13h30-14h00

**OPEN FLOOR FOR FINAL REMARKS AND ENDORSEMENT OF THE INITIATIVE BY POLICY REPRESENTATIVES** 

14h00-14h30

NEXT STEPS AND CONCLUDING SESSION

**LUNCH** at Safir Hotel

