

# **The Water- energy-food security nexus in the Mediterranean: challenges and opportunities**

Atef Hamdy<sup>1</sup>, Nouredin Driouech<sup>2</sup> and Amine Hmid<sup>2</sup>

<sup>1</sup> Emeritus Professor, Water Resources Management, CIHEAM/Mediterranean Agronomic Institute, Bari-Italy

<sup>2</sup> Environmental Sciences, CIHEAM-MAIB Alumni Network (FTN), CIHEAM/Mediterranean Agronomic Institute, Bari-Italy

## **Abstract**

The water-energy-food security nexus is now receiving consensus and attention of both political and technical experts. Indeed, the World Water Day 2014 was mainly on this topic. Although some of the biggest challenges the world is facing hinge on the growing scarcity and allocation of resources vital to sustaining life-water energy and food. Food, water and energy security are finally being recognized as the most important national and international security issues. Understanding the complex relationship between water, energy and food systems has become critically important to the development of a sustainable and secure future for all nations and regions. This was clearly highlighted at the Bonn 2011 nexus conference held in the preparation for the United Nations (UN) Rio +20 Conference which brought to light the need to address sustainability issues in the closely related sectors of water, energy and food security. In this regards, the question to be raised concerning water-energy-food nexus is where are we now? This will bring us to several crucial questions which technically and politically are wide bargaining and serious discussion including the following: (i) Nexus thinking has been around for a while now, but is it really joined up enough yet? (ii) Do we have enough data points to catalyze action? (iii) How are organizations tackling interconnected resources challenges and what are the concrete examples of scenario planning collaboration or programmes in place? (iv) Could the move towards valuing natural capital help accelerate nexus thinking and policy making?

In this paper evidence will be given that if the food, water and energy connection remain unaddressed, global food security will not be achieved increasing poverty and environmental degradation.

*Key words: Water-Energy-food nexus, Security, Sustainable development, Mediterranean*