

### Local Food Networks: Policies and Practices of International Cooperation

A significant impact of climate change (CC) on the primary sector is the threat to food security from decreasing crop yields, extinction of breeds/varieties, and loss of habitats from drought and inundation. The improvement of resilience in agriculture is a key feature **to ensure sustainability in food production**. The Mediterranean region has been identified as one of the most prominent CC hot-spots. In this area, CC could further exacerbate existing problems related to water scarcity, groundwater salinization and soil desertification, thus resulting in a decrease in land productivity, agricultural yields and rural income. As a consequence, the national economies of the Mediterranean countries would suffer not only from the direct impacts of CC, but also from the high costs of mitigation.

The **CLICHA project (Climate Change in Agriculture; <http://clicha.eu>)** was designed upon a national priority (environmental protection) of a Partner Country, Tunisia. Amongst the many subjects under the heading of environmental protection, the project consortium selected agriculture, as it plays a vital role for the Tunisian economy. The strategic objective of EU-Tunisia relations involves the support to sustainable development –including **sustainable agriculture**– for reducing social and regional inequalities, and improving the population's standard of living. As it is not possible to effectively cope with CC challenges and stimulate sustainable agriculture without a strong focus in education, the CLICHA project consortium deemed it important to modernise the curricula of the Agriculture and Animal Production courses offered by the Tunisian HEIs, so that students could be equipped with the necessary skills and knowledge to tackle this challenge under the specific local conditions. CLICHA is an ERASMUS+ project (Key Action 2- Capacity Building in Higher Education) which has embraced an interdisciplinary approach of this complex problem. The wider objective of CLICHA is to create qualified scientists who will contribute to the development of environmentally friend and sustainable agriculture, and will be readily absorbed by the labour market. These scientists could become the “transformation factor” for the whole Tunisian society towards a more sustainable way of farming, production, consuming and living. The major objectives and outputs of CLICHA project are:

- a) production of teaching material on “*climate change, crop and animal/livestock production*”;
- b) development of new/updated courses; an overall of 41 common curricular courses on the above subjects - including the CC component- were evaluated and updated;
- c) use of modern learning/teaching materials & tools (ICT equipment, e-learning platform, dynamic website, etc);
- d) reinforcement of internationalization activities, partnership strengthening (conferences, common publications, teachers exchange);
- e) involvement of the private sector (enterprises, commercial companies, etc ) to be linked with research & academia (business fora);
- d) dissemination amongst stakeholders and general public (tv, news, social media, etc.), and third mission activities.

The project activities are developed by 10 Partners from 4 Countries: - Greece: P1 Agricultural University of Athens (EU project coordinator); P2 Creative Thinking Development; P3 National Centre for Scientific Research “Demokritos”; - Tunisia: P4 University of Jendouba (Tunisian project coordinator); P5 University of Carthage; P6 University of Sousse; P7 National Institute of Field Crops; P8 Centre of Adaptation to Climate Changes; - Latvia: P9 Latvia University of Life Sciences & Technologies - Italy: P10 CISAO\_UNITO, Università degli Studi di Torino

Although CLICHA project targets directly the HEIs, the final impact is expected to be far wider. Besides the teaching and technical staff of both Tunisian and EU HEIs, and the Tunisian students, the other target groups that will benefit the project's outputs are the local enterprises. Commercial and business companies will participate to the project events, and informed about the opportunities opened in North Africa; they will also acquire and exchange knowledge from the HEIs and other businesses, initiating alliances with Academics and students. Professionals trained in HEIs who develop, lead, manage, teach, work in, and influence society's institutions, will be informed on the phenomenon of CC and trained on how to reduce and/or overcome it, thus contributing to a more climate-neutral & sustainable society.

The project has a 36 months duration (October 2017-October, 2020).



Dissemination with school pupils – BEN AYED L., 29<sup>th</sup> April 2019, UCAR-INAT (Tunis).



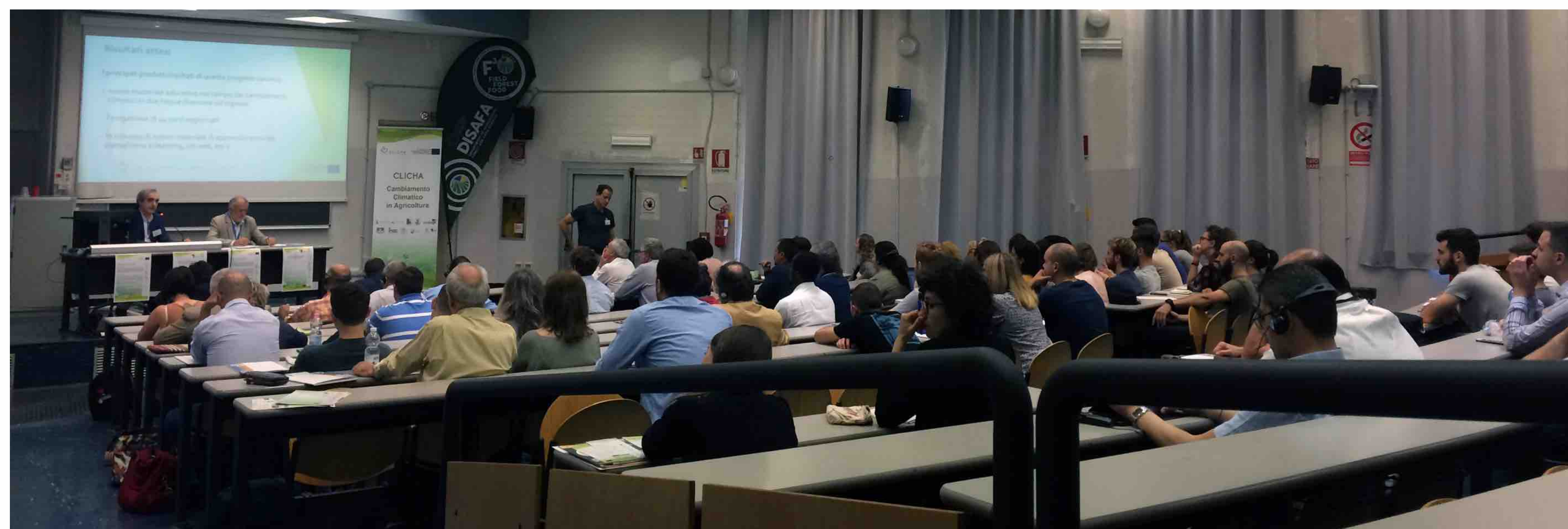
Business Forum – BARGE P., 12<sup>th</sup> March 2019, Sousse (Tunisia).



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Business Forum – DE MENEGHI D., 13<sup>th</sup> March 2019, ESIM, Jendouba (Tunisia).



Business Forum – BARGE P., 12<sup>th</sup> June 2019, Grugliasco (Italy).



Management Committee Meeting – BARGE P., 13<sup>th</sup> June 2019, Grugliasco (Italy).