



"ECOLOGICAL use of native PLANTS for environmental restoration and sustainable development in the MEDITERRANEAN region"

Project International Conference
'Ecological Restoration in the Mediterranean region:
Challenges and Opportunities'
14-15-16 October 2015, Beirut, Lebanon

Panagiota GOTSIOU

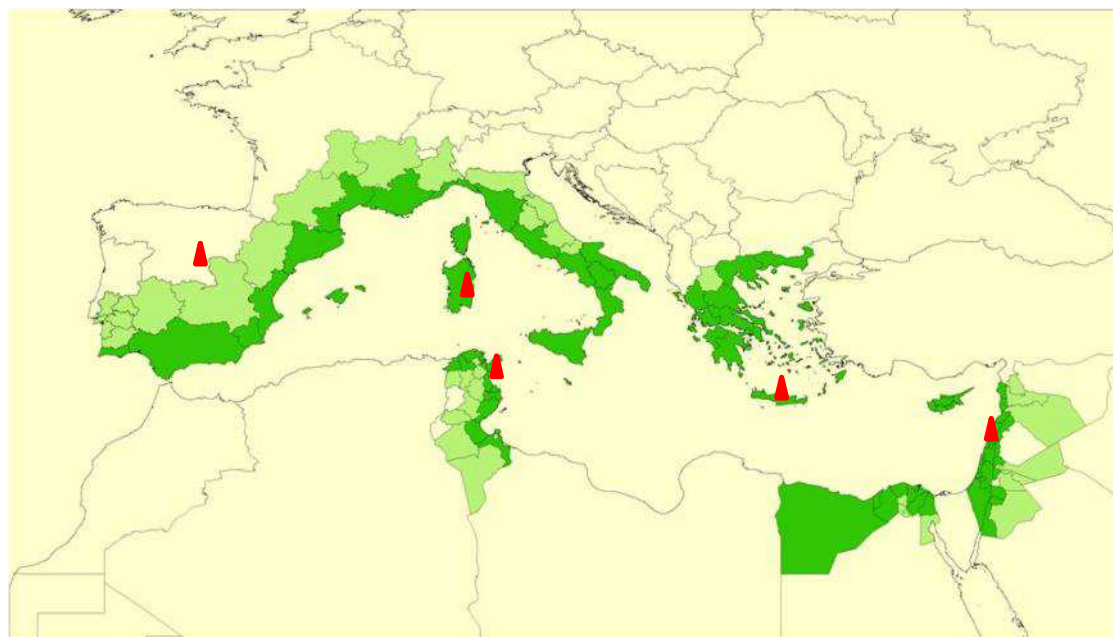
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PROGRAMME	PROJECTS	ENI CBC Med 2014-2020	COMMUNICATION
 <p>Working in the green economy</p>			<p>23.07.2015</p> <p>The EGREJOB project has trained 100 young people - half of them women - from Italy, Lebanon, Spain and Tunisia to foster their integration in the green job market.</p> <p>1 2 3 4 5</p>

European Neighbourhood and Partnership Instrument (ENPI) Cross-Border Cooperation Mediterranean Sea Basin Programme 2007-2013:

ECOPLANTMED is **one of the 95 projects (out of ~2000 proposals)** funded under the ENPI CBC Mediterranean Sea Basin Programme, a multilateral cross-border cooperation initiative financed by ENPI which involves 14 countries (Cyprus, Egypt, France, Jordan, Greece, Israel, Italy, Lebanon, Malta, Palestine, Portugal, Spain, Syria -participation currently suspended- and Tunisia). The Programme, under the leadership of the Autonomous Region of Sardinia as the Managing Authority, aims to promote a sustainable and harmonious cooperation process at the Mediterranean basin level by addressing common challenges and enhancing the endogenous potential of the area and has a total budget of 200 million Euro (www.enpicbcmmed.eu)

The **European Union** is made up of 28 Member States who have decided to gradually link together their know-how, resources and destinies. Together, during a period of enlargement of 50 years, they have built a zone of stability, democracy and sustainable development whilst maintaining cultural diversity, tolerance and individual freedoms. The European Union is committed to sharing its achievements and its values with countries and peoples **beyond its borders**.



***Disclaimer:** This presentation has been produced with the financial assistance of the European Union under the ENPI CBC Mediterranean Sea Basin Programme. The contents of this presentation are the sole responsibility of CIHEAM – Mediterranean Agronomic Institute of Chania and can under no circumstances be regarded as reflecting the position of the European Union or of the Programme’s management structures.*

PROJECT PARTNERS

Regional Ministry of Agriculture, Environment, Climate Change and Rural Development, Centre for Forest Applied Research (CIEF)
Valencia, Spain



University of Cagliari, Centre for Conservation of Biodiversity (UNICA - CCB)
Sardinia, Italy

CIEF, Valencia, Spain

Coordinator:
CIHEAM - Mediterranean Agronomic Institute of Chania, Mediterranean Plant Conservation Unit (CIHEAM – MAICH)
Crete, Greece

National Research Institute for Rural Engineering, Water and Forestry - Laboratory of Management and Valorisation of Forest Resources (INRGREF)
Ariana, Tunisia

Saint Joseph University
Laboratory for Seed Germination and Conservation (USJ), Lebanon



Ecological Restoration in the Mediterranean region:
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ECOPLANTMED was selected under the 2nd call for standard projects and addresses **Priority 2: Promotion of environmental sustainability at the basin level**, and

Measure 2.1: Prevention and reduction of risk factors for the environment and enhancement of natural common heritage.



The project ECOPLANTMED **total budget** is 1.050 million Euro and it is co-financed, for an amount of 0.945 million Euro (90%), by the European Union (ENPI CBC Mediterranean Sea Basin Programme).

Duration - 24 months: January 2014 – December 2015

Associate Partners of ECOPLANTMED

1. Decentralized Administration of Crete – Forest Directorate of Chania. Greece
2. Province of Cagliari - Department of Environmental Policy, Energy and Territory protection - Environment Sector, Italy
3. Molentargius Saline Regional Nature Park, Sardinia, Italy
4. LIMNE Foundation, Valencia, Spain
5. Acció Ecologista – Agró, Valencia, Spain



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Project
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Objective

The project aims to:

- contribute to **halting the loss of biodiversity** and
- to **promote a sustainable development model** in the Mediterranean region

by **enhancing the conservation of native plants** and **promoting their use** in habitat restoration and the plant production sector.

Expected results

- ✓ Enhanced preservation of the natural heritage of the Mediterranean region through the **ex situ conservation** of threatened plant species
- ✓ **Common standardized methodologies** and **practical tools** for the management and sustainable use of native plant species
- ✓ **Improved environmental management capacity and governance** at local level
- ✓ **Promotion of economic sector** for the production of native plants
- ✓ Increased **public awareness** of the importance of using native plants



the challenges...

Plant Diversity in the Mediterranean Basin

The Mediterranean Basin

- the third most significant plant diversity **hotspot** worldwide
- with **~25.000 plant species**- more than half of these endemic to the area

Only 5% of the original habitat still remains intact in the Mediterranean Basin



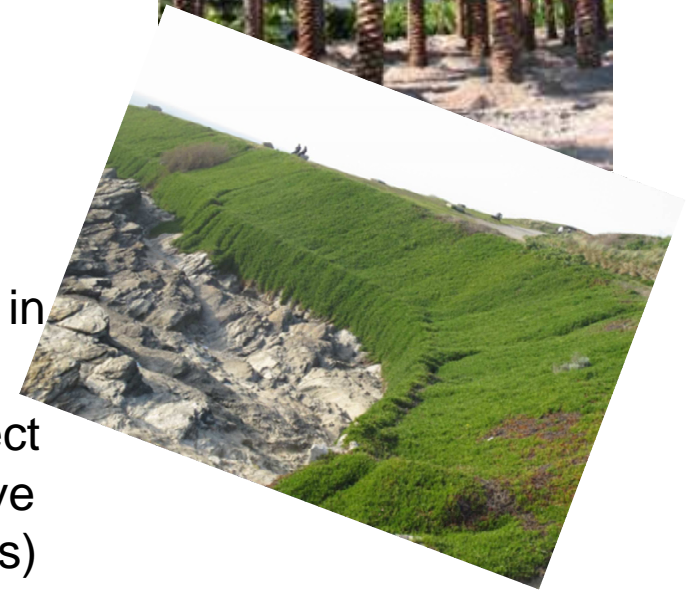
Threats and Pressures...

- ❑ Demographic expansion, tourism development, intensive agriculture systems causing alteration or fragmentation of natural habitats
- ❑ Forecast for a population of ~100mil. in the next 25 years
- ❑ Expected to have ~20% of species threatened with extinction until 2050 (UNEP, Plan Bleu)
- ❑ Additional impact of climate change



Risks of using exotic plant species

- ✓ **Landscape alteration** (for large scale restoration actions, exotic plants can dramatically alter unique landscapes)
- ✓ **Hybridization** (or genetic contamination; hybridization may occur between exotic and native species: loss of genetic diversity among native species and loss of local genotypes or rare and threatened native species)
- ✓ **Alterations in various ecosystem functions** (soil microbiota, insects/pollinators balance, etc.)
- ✓ **Economic impacts** (high management and eradication cost of invasive species as for e.g. eradicate *Carpobrotus edulis* and *C. acinaciformis* in Spain)
- ✓ **Human health** (some exotic plants have a direct impact on humans, such as those species that have become new sources of allergies for local residents)



The importance of using local native plants in Ecological Restoration & Gardening

- ❑ contribute to the **conservation** of the species and of genetic diversity
- ❑ **well adapted to the local environment** - supporting ecosystem resilience to a greater extent
- ❑ **less likely either to become invasive** or to give in to introduced or native pests than exotic species
- ❑ **native species may correspond better to the preferences of local people** - better ethnobotanical and ethno-ecological knowledge of these species may facilitate their successful use in restoration and gardening



FAO, 2014

Main constraints in the use of native plants

- **Limited availability of seeds** (the fundamental means for large scale restoration) – quantity and ‘quality’ aspects
- **Lack of know-how** for collection, curation, storage, germination, successful establishment of seedlings in nature
- **Lack of collaboration** between scientists and structures needed for large scale management of seeds from local species
- **Legislative** – administrative gaps



PROJECT ACTIONS & RESULTS



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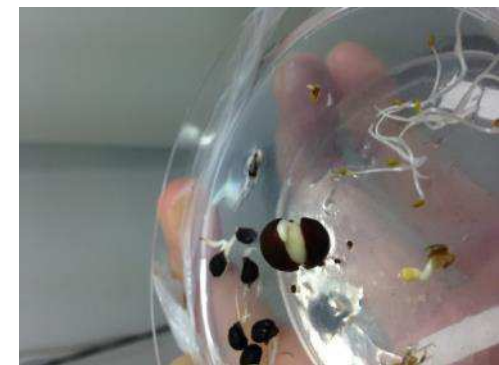
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CONSERVATION AND PROPAGATION OF TARGET MEDITERRANEAN PLANTS

project work package **WP 4**
WP coordinator: UNICA-CCB

- ✓ A set of guidelines & criteria commonly developed for working with conservation and propagation of native plant species of the Mediterranean area - a **common list** compiled with **>150 target plant species for habitat restoration activities** in the Mediterranean area
- ✓ **More than 200 seed accessions (for ~140 taxa)** obtained for ex situ conservation and germination experiments
- ✓ **More than 500 germination experiments** finalized – new **optimum germination protocols for >60 taxa**



CONSERVATION AND PROPAGATION OF TARGET MEDITERRANEAN PLANTS

project work package **WP 4**
WP coordinator: UNICA-CCB

- ✓ Edition of a “**Manual For The Propagation of Selected Mediterranean Native Plant Species**” in English and PPs local languages (soon ready to be downloaded from ECOPLANTMED’s web site)
- ✓ **A new seed bank** (with a cold room for seed storage and dry room) was set up at INRGREF facilities (Tunisia)
- ✓ Members of USJ and INRGREF visited the premises of MAICh and CCB in order to receive **training on seed bank functioning** and on the implementation of the diverse project activities within the WP4



EXCHANGE OF EXPERIENCE ON RESTORATION OF MEDITERRANEAN HABITATS

Project Work Package WP 5

WP coordinator: CIEF

- Development of **common methodology and criteria** for the identification, evaluation and selection of good practices of Mediterranean habitats restoration
- **Identification of 31 good practices** -15 of these selected to be presented in detail based on the common criteria
- **Edition of a ‘Guide of Good restoration Practices for Mediterranean habitats’** in English and PPs local languages (available for download at the project’s website)



ECOLOGICAL RESTORATION PILOT ACTIONS

PILOT SITE IN TUNISIA

Project Work Package WP 6

WP coordinator: USJ (ass.INRGREF)



- **Location: Nefza region**
 - **Area: 7 ha**
 - **Annual rainfall: 922 mm/year**
- GOAL: The development of an integrated approach to reduce degradation and to promote land rehabilitation using native plants of local origin (in collaboration with the local Forest Authorities)

ECOLOGICAL RESTORATION PILOT ACTIONS PILOT SITE IN LEBANON

Project Work Package WP 6
WP coordinator: USJ (ass.INRGREF)



- **Location: Kfardebian (Mt Lebanon)**
- **Area: 7 ha (8 plots)**
- **Annual rainfall: 1720 mm/year**

GOAL: promote land restoration using native plants of local origin (in collaboration with the local NGO, Jouzour Loubnan)

CAPITALIZATION

Project Work Package WP 3

WP coordinator: CIHEAM-MAICH (ass.CIEF)

- Elaboration and implementation of **Capitalization plans** (at Mediterranean, local and ENPI CBC MED levels) for the valorization of project outputs
- Signing of **20 agreements** with target groups* to initiate collaborative actions on native plants use and conservation

*

- Public authorities & development agencies dealing with environmental management and plant genetic resources management
- Public & private plant production sectors
- Landscape architects & garden designers
- Scientists & researchers
- Environmental educators
- Environmental organisations, local communities, farmers



COMMUNICATION

Project Work Package WP 2

WP coordinator: CIHEAM-MAICH (ass.USJ)

- Project leaflet in English and 6 more languages for local use: Greek, Italian, French, Arabic, Spanish, and Catalan.
- 6 information days and 5 workshops in partners' regions with over 600 participants
- Participation in 18 external events where over 2000 people were informed about ECOPLANTMED



COMMUNICATION

Project Work Package WP 2

WP coordinator: CIHEAM-MAICH (ass.USJ)

Actions in progress...

- **ECOPLANTMED International Conference:** “Ecological Restoration in the Mediterranean region: Challenges and Opportunities”, Beirut, Lebanon, 14-16 October 2015
- **Translation & dissemination of ECOPLANTMED editions** “Guide of good restoration practices” and “Manual for the propagation of selected Mediterranean native plant species”
- **Organisation of 4 information days and 5 workshops**



EcoplantMed

ECOLOGICAL USE OF NATIVE PLANTS FOR ENVIRONMENTAL RESTORATION AND SUSTAINABLE DEVELOPMENT IN THE MEDITERRANEAN REGION

THE PROJECT PARTNERS PUBLICATIONS NEWS & EVENTS LINKS CONTACT INTRANET



ECOPLANTMED International Conference

The project ECOPLANTMED will hold its International Conference with the theme "Ecological Restoration in the Mediterranean region: Challenges and Opportunities" in Beirut, Lebanon on 14, 15 and 16 October 2015. The conference focuses on ecological restoration of Mediterranean habitats and the importance of using native plants. For more information and registration, visit the ECOPLANTMED International Conference website.

ECOPLANTMED at a glance

The project ECOPLANTMED: "Ecological use of native PLANTS for environmental restoration and sustainable development in the MEDITERRANEAN region" is a joint Mediterranean initiative based on the collaboration among seed banks, research institutes and institutions dealing with native plant conservation and management.

READ MORE

ECOPLANTMED promotes the use of native plants

The Mediterranean Basin is one of the most bio-diverse regions and the third most significant plant diversity hotspot worldwide with 25,000 plant species, over half of which are found nowhere else in the world. A mere 5% of the original extent of the

News & Events

ECOPLANTMED at the HBS 19th Panhellenic Scientific Conference, Patra, Greece, 8-9 October 2015

The Hellenic Botanical Society (HBS) will hold its 19th conference about "The Science of Plants, a foundation for the Conservation of Nature". CIHEAM - MAICH will present the ECOPLANTMED initiative...

Read 18. 2015 Read more...

CIHEAM - MAICH invites you to an open information day with the topic "Use of native flora in landscaping and restoration", Chania, Crete, 6 October 2015

The Mediterranean Plant Conservation Unit of CIHEAM - MAICH, Coordinator of the ECOPLANTMED project, is organising an event in order to inform about the project and the importance of using native plants in landscaping (parks, gardens, etc.) and environmental restoration.

Read 18. 2015 Read more...

Project website

For further info and downloading of project outputs

www.ecoplantmed.eu

THANK YOU FOR YOUR ATTENTION!
ENJOY ECOPLANTMED INTERNATIONAL
CONFERENCE!

www.ecoplantmed.eu/



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