

REACTION

Restoration Actions to Combat Desertification in the Northern Mediterranean

REVIEW MEETING ON DESERTIFICATION RESEARCH IN THE EUROPEAN UNION

5th-6th July 2004
Brussels

Research supported by the 'Environment and Climate Programme' under contract EVK2-CT2002-80025

PARTNERS



FUNDACION CEAM - Fundación Centro de Estudios Ambientales del Mediterráneo



NRD - Nucleo Ricerca Desertificazione, Università di Sassari, Sardinia, Italy



AUTH - Aristotle University of Thessaloniki, Department of Forestry and Natural Environment, Laboratory of Silviculture, Aristotle University of Thessaloniki, Greece



ISA - Instituto Superior de Agronomia, Lisboa, Portugal



CIHEAM-IAMZ Mediterranean Agronomic Institute of Zaragoza



CEFE - Centre National de la Recherche Scientifique - Centre d'Ecologie Fonctionnelle et Evolutive

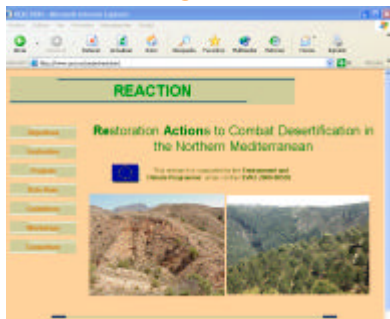


WWF - World Wide Fund For Nature, France

REACTION

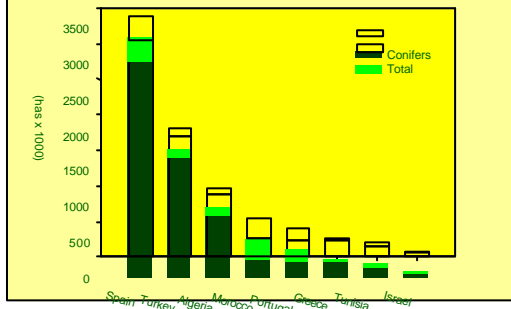
Restoration Actions to Combat Desertification in the Northern Mediterranean

WEB PAGE: www.gva.es/ceam/reaction



Background, problems and needs

Conifers / Total Reforested Area



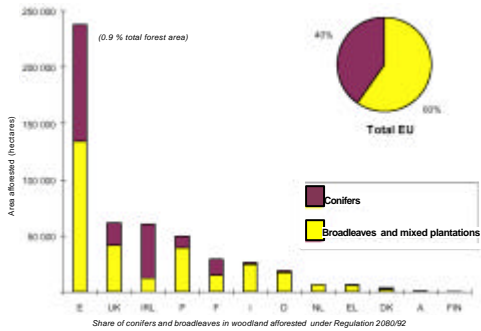
TRADITIONAL OBJECTIVES

- Hydrology regulation
- Sand dune fixation
- Improving forest productivity
- Improving rural economies

NEW OBJECTIVES

- Ecological values
- Biodiversity
- Combating desertification
- Climate change
- Fire prevention
- Recreational and cultural use

CAP AFFORESTATION 1993-1996



- Huge number of mitigation/restoration experiences in the Mediterranean
- Little availability - grey literature
- Little evaluation
- Collaboration of stakeholders at the various management levels required

TERMS OF REFERENCE AND PRIORITIES RELATED TO RESTORATION RAP - Annex IV

EXCHANGE OF DATA & INFORMATION

- Poor communication limits a widespread use of the best available technology
- ⇒ Need of exchanges through NAPs (using national languages)

TERMS OF REFERENCE AND PRIORITIES RELATED TO RESTORATION RAP - Annex IV

MOST SENSITIVE AREAS

- Learning from past reforestation actions in these areas

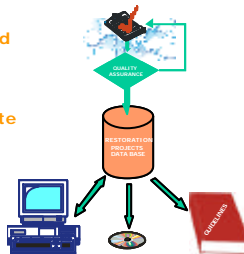


TERMS OF REFERENCE AND PRIORITIES RELATED TO RESTORATION RAP - Annex IV

REACTION OBJECTIVES

Facilitate access to high quality information establishing a database on land restoration to combat desertification:

- Inventorying well-documented restoration projects in the northern Mediterranean
- Selecting the most appropriate methodology to evaluate the results of restoration projects

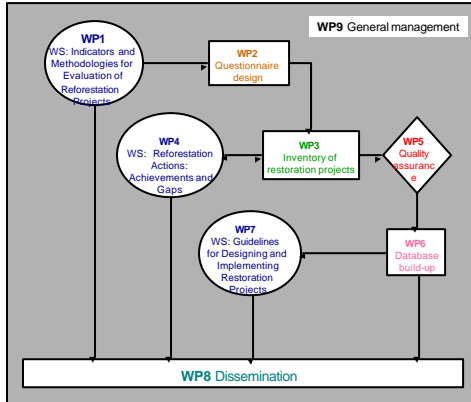


ACTIVITIES

- INVENTORYING OF RESTORATION PROJECTS (*)
- QUESTIONNAIRE
- EVALUATION (*)
- QUALITY ASSURANCE
- DATA BASE
- DISSEMINATION: GUIDELINES (*)

(*) WORKSHOPS

STRUCTURE OF THE PROJECT



MANAGEMENT



ADVISORY PANEL

David Tongway, CSIRO, Australia
Michel Malagnoux, Secrétaire Silva Mediterranea, FAO, Rome
John Parrota, IUFRO, USA
Massimo Candelori, CST-UNCCD

National Working Group

SPAIN:
 Management: 4
 Research: 3

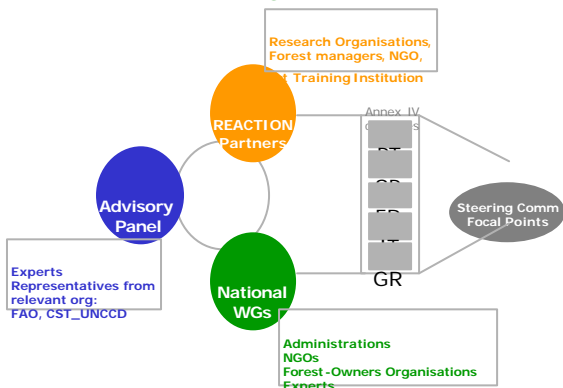
ITALY:
 Management: 2
 Research: 1

GREECE:
 Management: 4
 Research: 3
 Others: 1

PORTUGAL:
 Management: 4
 Research: 3
 Others: 1

FRANCE:
 Management: 5
 Research: 7

MANAGEMENT



WORK PLAN



Inventories of restoration projects: In collaboration with National Working groups, each partner will make an inventory of selected representative and well-documented projects to be evaluated.

WORKSHOP ON METHODOLOGIES AND INDICATORS FOR THE EVALUATION OF RESTORATION PROJECTS

OBJECTIVES: Review and selection of a common analytical framework, indicators and methodologies for the evaluation of reforestation projects.

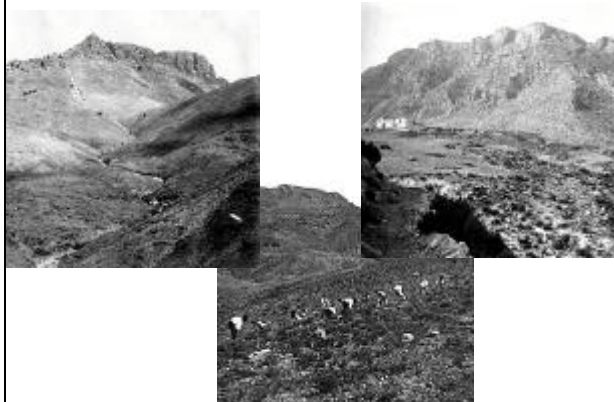


INVENTORY OF RESTORATION PROJECTS

SPAIN:

Consultation to the Spanish working group
 Reviewing the National catalogue on reforestation projects
 Preliminary set of restoration projects for evaluation:
 4 in Andalucia, 4 in Murcia and 1 in Valencia Region

SIERRA ESPUÑA 1885



SIERRA ESPUÑA 2004



ITALY:

Interviewing many of the elder forestry officers
 Consultation to the main forest administration institutions
 Pre-selection of 20 projects distributed across Sardinia.

AFD_BONO_65 - Inclined aerial view dated before 1996, year of conifers removal



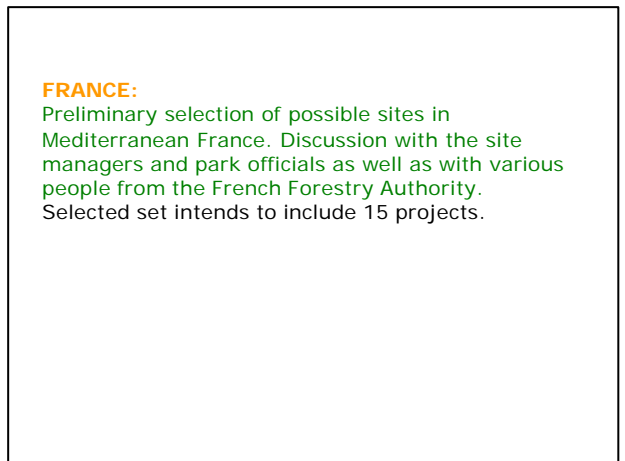
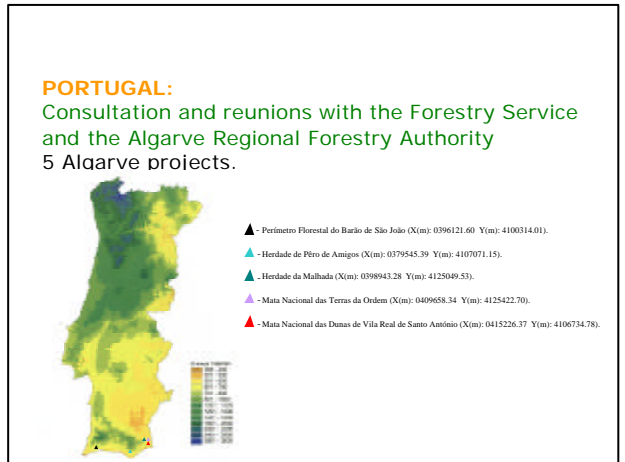
AFD_BOTTIDA_65 - Ground view, opposite side of the same mountain as above. Conifers here haven't been removed



GREECE:

Two national seminars were organised
4 projects seem to satisfy the agreed criteria to be included in the restoration database:

- Kedrinos Lofos, Thessaloniki (the peri-urban forest)
- Taxiarchis, central Chalkidiki
- Stratoni, northeastern Chalkidiki
- Dadia, Thrace

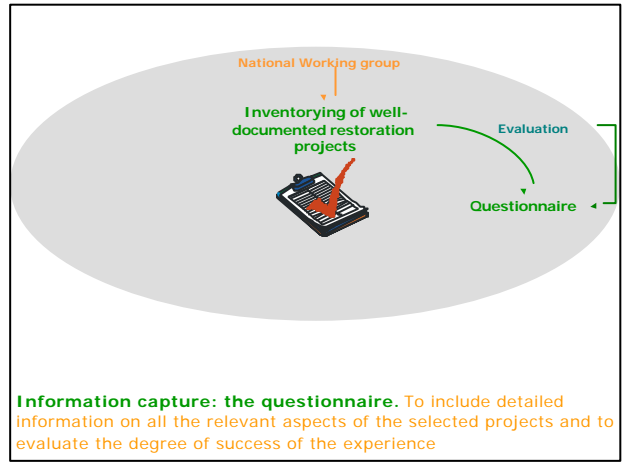




Brusquet basin before the start of the RTM (Restoration Mountain Terrain) project (1877) and more than a century after reforestation (1995) (photos from D. Vallauri)



Restoring Mt. Sainte Victoire after the wildfire of 1889 (painting by Paul Cézanne, photo from D. Vallauri)



Information capture: the questionnaire. To include detailed information on all the relevant aspects of the selected projects and to evaluate the degree of success of the experience

Questionnaire

DESIGN REQUIREMENTS:

- To describe the ecological and technical characteristics of the restoration projects and their results
- Suitable for the widest range of restoration projects
- Transferable to a computer support
- Open to further modifications and updates
- Easy to fill in and understand

Determining factors

- Great variability of ecological conditions and technologies.
- Great amount of information; different degree of detail.
- Qualitative and quantitative data.
- Lack of standardised evaluation methodologies.

Questionnaire

Contents

- Simplicity and brevity
- As far as possible self-explanatory
- Standardised categories
- Brief descriptions and comments for singularities

Quality assurance

- Minimum information required
- Standards
- Guidelines

Questionnaire

Structure

Modules:

- Description of the project
- Site environment
- Technology applied
- Evaluation

III. RESTORATION PROCESS

III.1. RESTORATION GOALS

1. Which were the general project objectives defined?

2. Degree of achievement: Not achieved Partially achieved Fully achieved

3. Main reasons for failure: Lack of resources Lack of political support Lack of technical support Lack of financial support

4. Main reasons for success: Good planning Good implementation Good monitoring and evaluation Good communication Good leadership

5. How was the success measured? Through the achievement of the objectives Through the achievement of the objectives and the implementation of the project Through the achievement of the objectives and the implementation of the project and the monitoring and evaluation

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III.2. PLANNING

1. How was the work organized for the implementation of the project? Through the implementation of the project Through the implementation of the project and the monitoring and evaluation

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III.3. COMMUNICATION AND PARTICIPATION

1. How was the work organized for the implementation of the project? Through the implementation of the project Through the implementation of the project and the monitoring and evaluation

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V. ASSESSMENT BY RESTORATION UNITS

V.1. PLANTATION/SEEDING RESULTS

1. How many plants/seedlings were planted for the restoration project? 0 1-10 11-20 21-30 31-40 41-50 51-60 61-70 71-80 81-90 91-100

2. How many plants/seedlings were lost for the restoration project? 0 1-10 11-20 21-30 31-40 41-50 51-60 61-70 71-80 81-90 91-100

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10. How many plants/seedlings were lost for the restoration project? 0 1-10 11-20 21-30 31-40 41-50 51-60 61-70 71-80 81-90 91-100

Questionnaire

Structure

Modules:

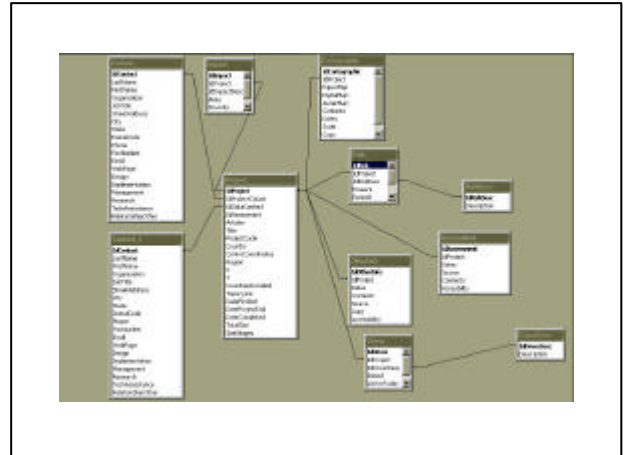
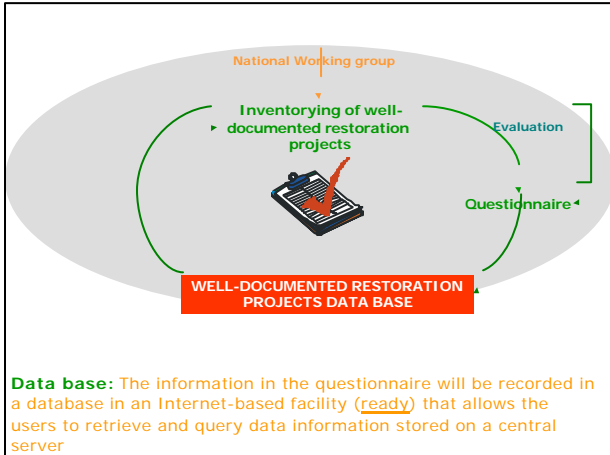
- Description of the project
- Site environment
- Technology applied
- Evaluation

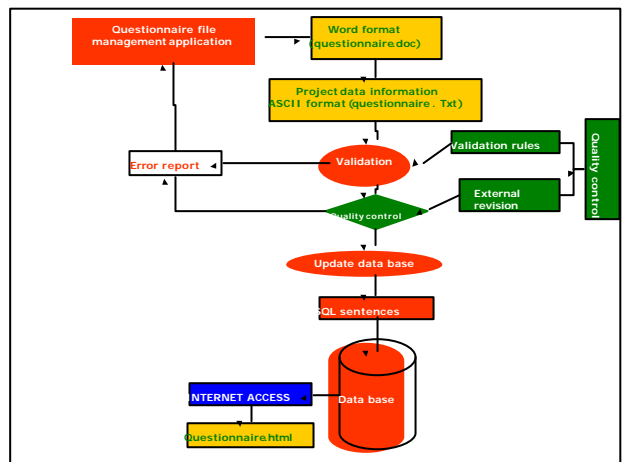
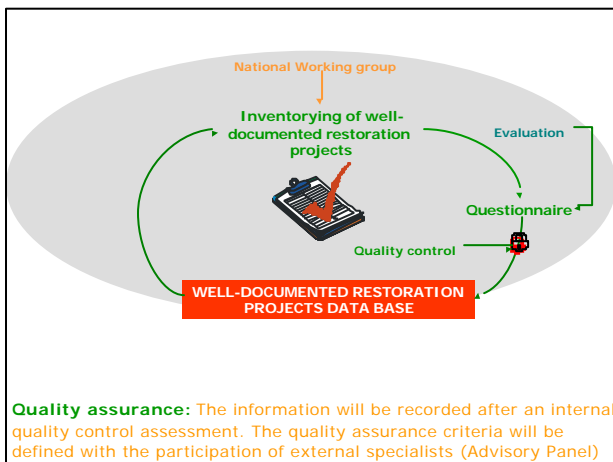
Format

- Preliminary capture of the information: hardcopy
- Translate to electronic files → common structure
- Easy to fill in, friendly: check list, pop-up menus, etc.

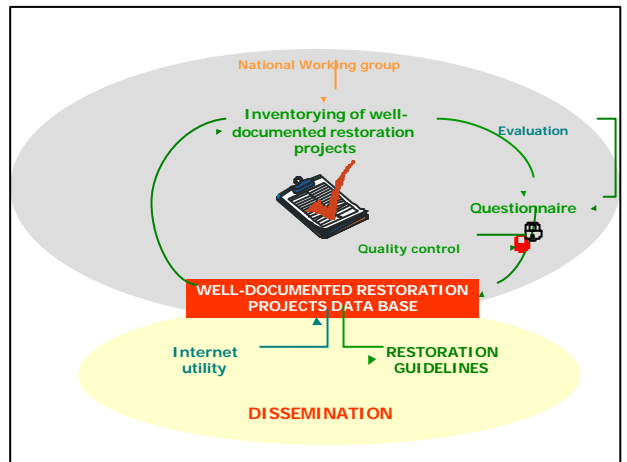
Evaluation

- Objectives
- Technology applied
- Structure & Biodiversity
- Functions & Processes
- Landscape & environmental assessment
- Socio-economic assessment





Order	Order Date	Order Time	Order Status
1	2005/09/23	10:00	Completed
2	2005/09/25	10:00	Completed
3	2005/09/25	10:00	Completed

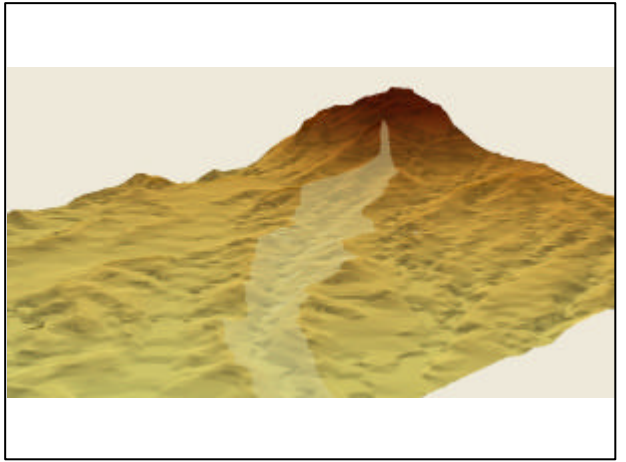
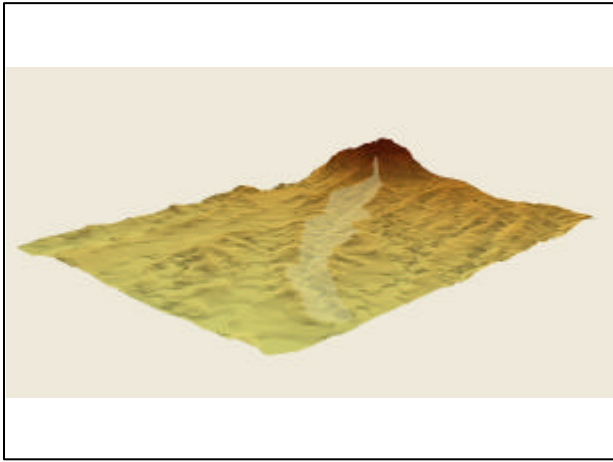
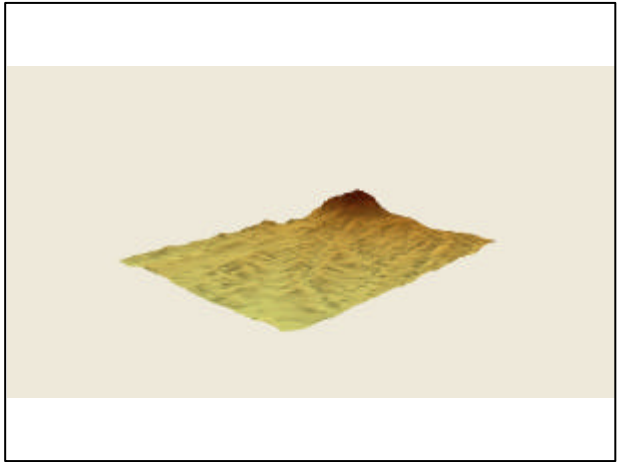
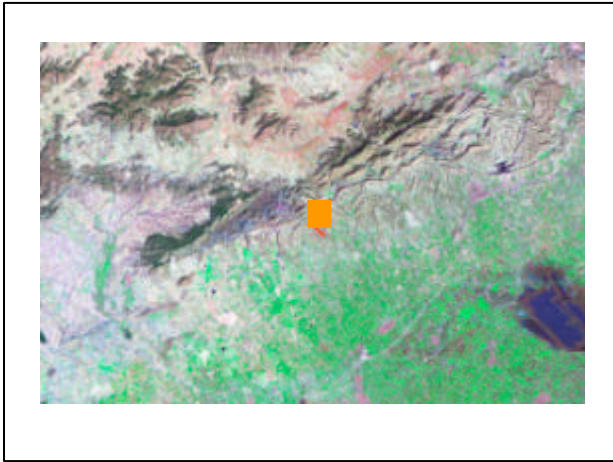
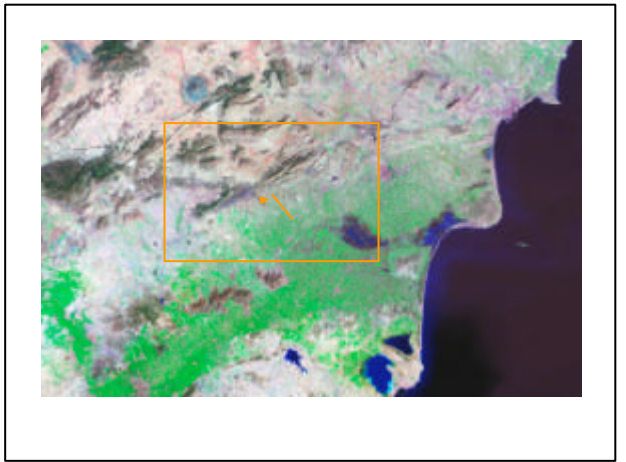
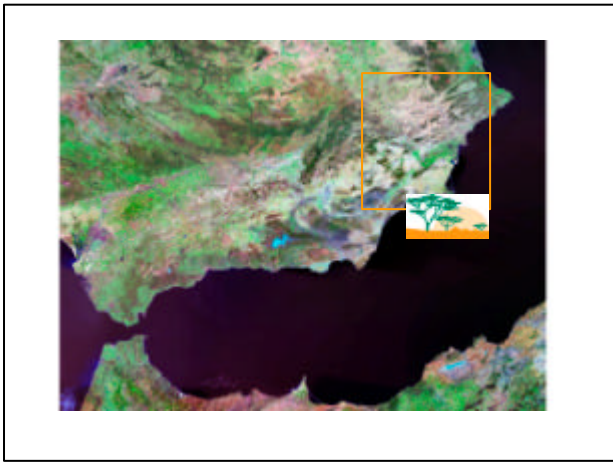


- ### NEXT ACTIONS
- * DATA BASE IMPLEMENTATION
 - * INTERNET ACCESS
 - * RESTORATION GUIDELINES (2005)
 - * RESTORATION ADVANCED COURSE (2005)
- ### NEXT WORKSHOPS
- * Restoration projects to combat desertification in the Northern Mediterranean: Thessaloniki, Greece, 23-25 September 2004
 - * Guidelines for restoration actions in the northern Mediterranean: Lisbon, late 2005

Demonstration Project to combat desertification

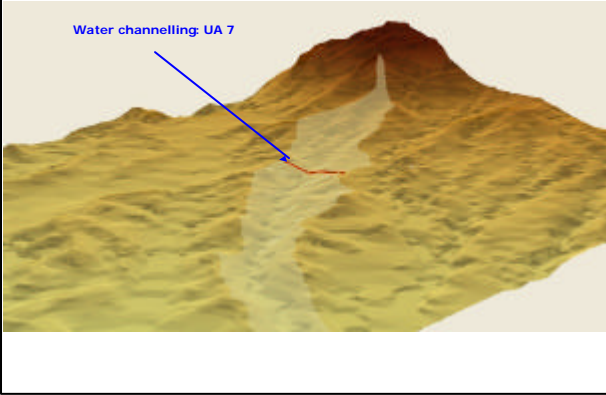
MINISTERIO DE MEDIO AMBIENTE

RESTORATION AND MANAGEMENT PROGRAMME FOR SEMI-ARID LANDS IN ALBATERA (ALICANTE)



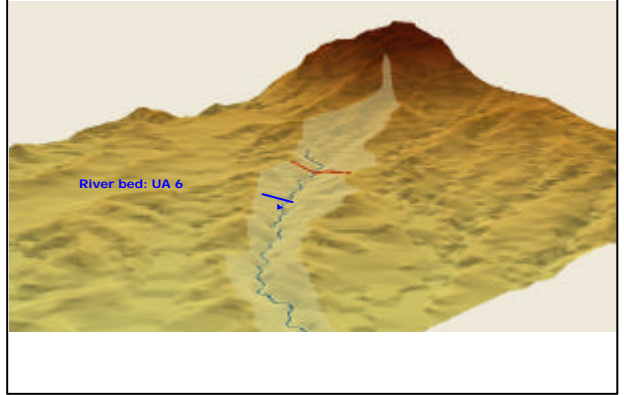
Restoration Units

Water channelling: UA 7



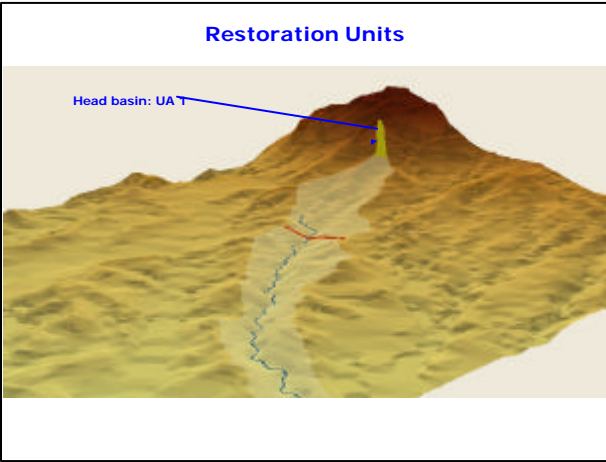
Restoration Units

River bed: UA 6



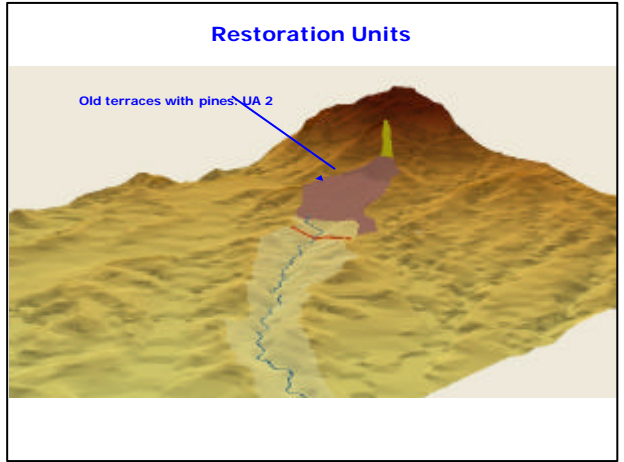
Restoration Units

Head basin: UA 1



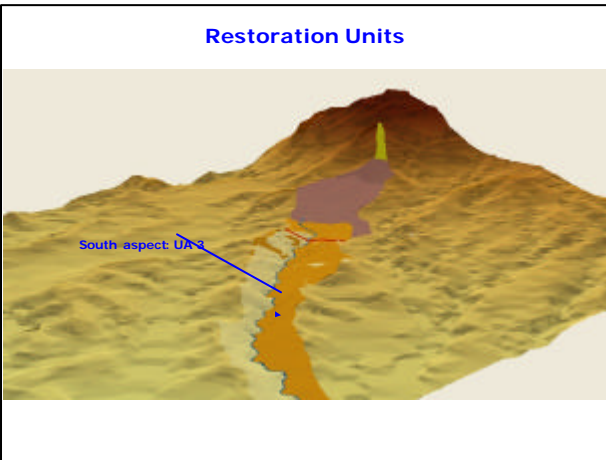
Restoration Units

Old terraces with pines: UA 2



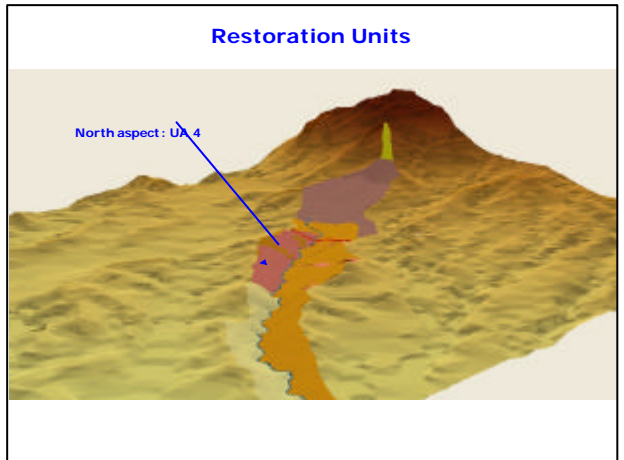
Restoration Units

South aspect: UA 3

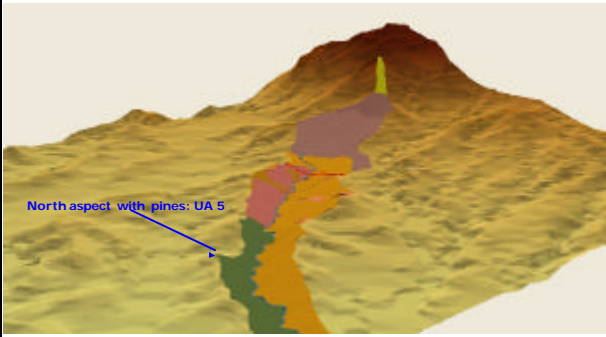


Restoration Units

North aspect: UA 4



Restoration Units



Old-terraces-with-pines unit and head-basin unit



Degraded terraces; erosion processes



Small furrow in a degraded terrace



Water-channelling unit



Pistacia lenticus planted in winter 2001 (photo 2003)



Olea europaea var sylvestris



Ceratonia siliqua



Species planted in winter 2002
(photos in spring 2004)