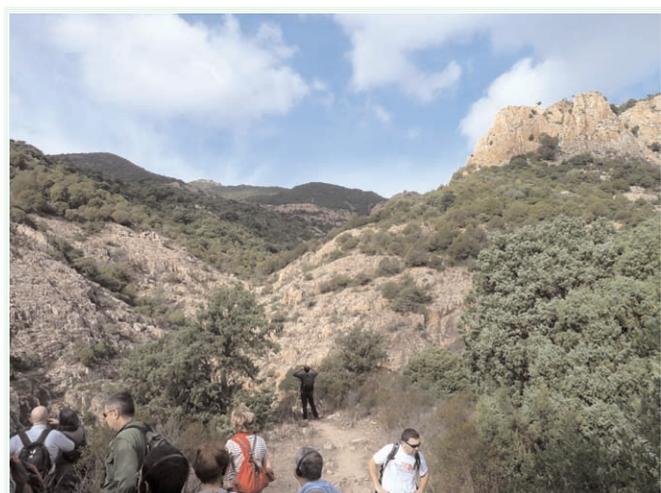
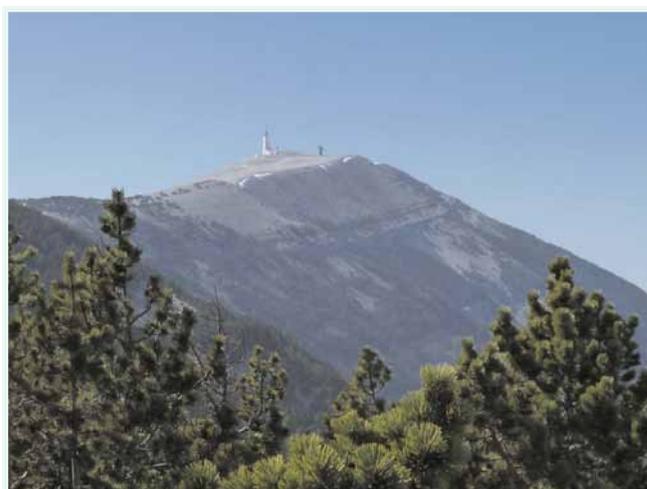


## QUALIGOUV Project Progress book No. 3

Intermediary seminar  
Reserve Man and Biosphere  
of Mont Ventoux - Marseille  
France  
24 - 27 May 2011



Seminare  
*Oasi "Monte Arcosu"* - Capoterra  
Sardinia, Italy  
25 - 27 October 2011

# Table of contents

Foreword	2
Caution	3
<b>General Presentation of the QUALIGOUV project</b>	<b>4</b>
MED Programme	4
Problematics of the mediterranean forests	4
QUALIGOUV: Common difficulties, shared objectives, coordinated action	5
Expected results	5
Coordination, evaluation and capitalization: a proved method	6
Experienced partnership	7
<b>Presentation of the partners, the pilot sites and their context, and the project activities</b>	<b>8</b>
Region of Murcia (lead partner of the project)	8
Regional Natural Park of Alpilles	10
Regional Natural Park of Luberon	12
French National Forestry Office	14
Generalitat Valenciana	16
Province of Taranto	19
WWF Mediterranean Program Office	20
<b>Project progress and partial results</b>	<b>23</b>
Project of the National Forest Office (5th seminar, France, 24 - 27 May 2011)	23
<i>Mont Ventoux Biosphere Reserve</i>	23
<i>Debriefing of the field trip in the Park Terra delle Gravine</i>	30
Project of the WWF (6th seminar, Italy, 25 - 27 October, 2010)	32
<i>Natural Reserve of Monte Arcosu</i>	32
<i>The Oasi, a key concept of the WWF's action</i>	34
<i>Debriefing of the field trip in the Natural Reserve of Monte Arcosu</i>	36
<i>Project of the WWF Portugal</i>	38
Elements for capitalization	39
<i>Fifth meeting of the peer group (Marseille, France, 26 of May 2011)</i>	39
<i>Sixth meeting of the peer group (Capoterra, Sardinia, 26 October 2011)</i>	44
State of progress of the partners' activities	48
<b>List of the participants to the four past seminars of the QUALIGOUV project</b>	<b>51</b>

---

# Foreword

This is the third progress book of the QUALIGOUV project. It is not indispensable to have read the previous progress books to understand it, because the first section, aimed at presenting generally the project, the partners and the scheduled activities, is common to the three of them (excepted the minimal updating). Anyway, you can get the issues 1 or 2 by simply contacting the International Association for Mediterranean Forests (AIFM)\* or any other partner (their email addresses are available in the section "Presentation of the partners [...]", pages 8 to 22).

As the project comes to end, and in spite of the difficulties, we can consider that the initial objectives were globally completed. Important elements of progression were reached. Indeed, beyond the meetings and exchanges throughout these three years, the collective maturation and the accomplished works of synthesis, together or individually by every partner, made each of us to go ahead. The innovative methods and techniques of improvement of the quality of the forest management, evaluation and governance, experimented by the partners and analyzed by the peer group, constitute, henceforth, a reservoir of tools at disposal of foresters and other Mediterranean managers of protected natural areas.

The final capitalization book, which is going to be published soon, will list all these tools, and analyze the concrete contributions of the project.

QUALIGOUV project could be the object of a continuation, allowing the partnership and the collaborations, initiated or strengthened during these three years, to be perpetuated.

Please believe, dear friends and partners, that we shall continue to hold you informed about any new element on this point.

Juan de Dios CABEZAS  
Head of the General Direction of Natural Heritage  
and Biodiversity of the Region of Murcia

Mohamed Larbi CHAKROUN  
President of the International  
Association for Mediterranean Forests

*Conception and drafting* : Jean BONNIER, Gaëlle FOSSOY, David GASC, Rémi VEYRAND, International Association for Mediterranean Forests - [www.aifm.org](http://www.aifm.org).

*Photos* : David GASC and Rémi VEYRAND, AIFM.

---

\* - The AIFM just renewed its website. Do not hesitate to visit it: [www.aifm.org](http://www.aifm.org). You will find there a lot of information and news about Mediterranean forest and cooperation projects.

# Caution

This volume constitutes the third progress book of the QUALIGOUV project "Improve governance and quality of the forest management in protected Mediterranean areas", co-financed by the European Regional Development Fund.

It was realized in conjunction with the fifth and sixth seminars of the project, which took place from 24 to 27 of May 2011 in the Mont Ventoux and Marseille (Region Provence-Alpes-Côte d'Azur, France) and from 25 to 27 of October 2011 in the the Oasi Monte Arcosu and Capoterra (Region Sardinia, Italy).

Such international seminars are essential in the capitalization process of the project: they enhance debate, formulation of the difficulties, observation of the undertaken of activities and the results by passing word to the local stakeholders involved in concrete projects, to the local decision-makers, to the daily users and to the concerned institutions. Indeed, if international meetings on these subjects are recurrent, they are rarely opened to the numerous categories of stakeholders, in particular for the "daily" ones, whose experiences are, therefore, not enough capitalized. The debriefing session, which follows the field trip during each seminars, allows us to gather various perceptions of common problems and to build gradually, and collectively, a "shared conception of the Mediterranean forest management" faithful to the field realities.

Our methodology consists in communicating throughout the project, waiting for its end. The vocation of the progress books is thus to report, the most accurately as possible, and in a progressive way, major elements discussed during these seminars, following the field trips and the peer group's meetings. Each one of them synthesizes the information and the state of progress of all the partnership's activities, with more information concerning territories visited during a seminar.

So, the succession of three progress books is aimed at presenting the project progress, between its initiation and the final state, in terms of improvement of the collective thinking about the forest management quality and territorial governance. The objective of these progress books is to capitalize knowledge but also, and especially, to validate and to promote good practices, management tools and decision-making support which can be developed or used in other Mediterranean contexts. This constitutes an information and qualitative evaluation mean of the project for the QUALIGOUV partners themselves, for the management authorities of the MED programme, and for other stakeholders of the Mediterranean territories. Then, the Final capitalization book will resume all the conclusions, realizations and publications elaborated during the project.

Every step we make forward will allow us to better integrate the stakes related to the Mediterranean wooded areas into regional policies.

Note: At the same time as the progress books publication, more detailed information is being published on the project website [www.qualigouv.eu](http://www.qualigouv.eu). In particular, people shall find there the detailed reports of the seminars and peer group meetings, steering committee's decisions statements, and other working documents produced by the different partners.

# General presentation of the QUALIGOUV project

## MED Programme

The MED Programme is a transnational programme of European territorial cooperation. It is financed by the European Union as an instrument of its regional policy and of its new programming period. It continues the tradition of the European programmes for cooperation (previously named Interreg). It takes place within the objective "European territorial cooperation" of the period 2007-2013.

With a budget of more than 250 millions euros (whose 193 millions of ERDF), the Programme launch, until exhaustion of its ERDF envelope, calls for projects to build transnational partnerships aiming at meeting the priority objectives of the Programme in the Mediterranean space.

Programme objectives:

- To improve the area's competitiveness in a way that guarantees growth and employment for the next generations (Lisbon strategy).
- To promote territorial cohesion and environmental protection, according to the logic of sustainable development (Goteborg strategy).

Four priority axis were identified:

- Axis 1: Strengthening innovation capacities.
- Axis 2: Environment protection and promotion of a sustainable territorial development.
- Axis 3: Improving mobility and territorial accessibility.
- Axis 4: Promoting a polycentric and integrated development of the Med area (QUALIGOUV responds to this axis).

## Problematics of the mediterranean forests<sup>1</sup>

It is essential to remind here that in each one of our interventions we consider all the natural and wooded areas characterized by Mediterranean climate. It does include deforested zones or areas affected by erosion, herbaceous natural habitats, scrubland or dehesa, as well as more intensively wooded areas and ageing forests, or also man-made artificial areas (plantations). Because of their historically quite intense anthropogenic transformation, the Mediterranean ecosystems incessantly evolve between "naturalness" and "artificialization". The diversity of these areas is generally included under the term of "Mediterranean forests and other wooded areas". By convenience, we shall call them "Mediterranean forests".

Although Mediterranean forests generate a reduced commercial production, they provide many amenities to the society. They are subject to traditional and new uses (production, biodiversity conservation, soil, water, carbon sequestration, recreation) that follow to the needs of society and involve an increasing stakeholders' diversity.

This sometimes leads to situations of conflict and misunderstanding, especially about the development and the management of these areas. This is particularly evident in the Mediterranean region, the scene of suburban and tourist activities in which the pressures and challenges are increased.

---

<sup>1</sup> - See "Problématique de la forêt méditerranéenne". Review *Forêt Méditerranéenne*, special issue n°1, august 2002. Project realised within the framework of Interreg II C programme.

## QUALIGOUV: Common difficulties, shared objectives, coordinated action

Facing these challenges, the aim is to improve local policies as well as the dialogue required for a sustainable management of protected Mediterranean forests and woodland areas by focusing on the conception and implementation of good governance and management quality tools. The multi-purpose nature of these protected areas requires the designing and fine tuning of new strategies for shared activities aimed at involving a great variety of participants. Such activities range from simple popularisation of information to the involvement, at an institutional, technical and / or financial level, of the different stakeholders and concerned publics.

At the same time, QUALIGOUV aims at facilitating the collaboration between people living in urban centres and those from nearby rural areas.

To reach its objectives, QUALIGOUV intends to undertake concrete and innovative experimentation in the pilot sites. In particular, such initiatives include:

- a survey of what is being done, at a local or regional level, about governance and quality policies for forest management;
- the identification and consideration of the assorted outlooks, viewpoints and expectations;
- the setting up procedures to resolve disputes and conflicts, and to establish synergy between the various people and involved partners;
- the design and test of functional and reproducible tools for multi-purpose management and control;
- the guarantee that the obtained results are monitored and assessed and that such results and information are communicated to everyone involved, from stakeholders to the concerned publics.

Pilot experimental activities have been set up in order to test and identify good practices related to governance improvement, quality of stand planning, fighting against wildfire, public reception, biodiversity conservation, forest products promotion (such as energy-wood), etc, according to the local priority and context.

QUALIGOUV suggests an ambitious strategy for spreading, as widely as possible, the benefits accruing from the project. The activities will be carried out within a framework of collaborative transnational reflection thanks to a peer group, composed by repre-

sentatives from partner's organizations along with external experts. This group has been created to capitalize the results obtained from the project's experimental activities. Once ascertained the strengths and the weaknesses of the various activities, the peer group will contribute to the design and application of innovative mutually-shared tools for governance, assessment and management quality. The results of the project, validated knowledge and competence will be widely disseminated using various media throughout the partner regions and the MED Programme area (see "Expected results" section, below).

QUALIGOUV total budget, as approved by the MED Programme, is 1,818,000 euros for an operating period of 36 months (2009 - 2012). The 75% is financed by the ERDF (European Regional Development Funds). The residual 25% is generally funded by the partner organization's own resources (self-financed) or by other proceedings like local authorities or other structures (Regional Centre of Forest Ownership of Provence-Alpes-Côte d'Azur Region, General Council of Bouches-du-Rhône, French Ministry of Ecology, Italian ministry of Finance and Economy...).

## Expected results

The pilot experiments allow to identify the "good practices" related to:

- the governance of the forest management based on the institutional, technical and financial implication of the various actors concerned by their active participation in the process of decision and management;
- the quality of the silvicultural practices and the management of areas, based on the follow-up and the evaluation;
- the dialogue between urban and rural stakeholders. By extension, the implication of the decision-makers in the management of the suburban and natural woodlands in order to reach a co-responsibility of the administration, the owners, the administrators and the users;
- the communication and the awareness improvement of the civil societies about the values of these areas and about the stakes related to their integrated management.

Over and above the communication tools that are mentioned below, QUALIGOUV produce several documents and reports for managers of protected areas, people needing reference works and decision-makers who seek an integrated overview of their territories.

- A progress book is compiled for each two seminars in order to present the visited pilot territories and scheduled activities and, above all, to summarize the main elements of discussion during the seminars. Every exchange meeting and event related to the project is being written up in detailed reports available on the website [www.qualigouv.eu](http://www.qualigouv.eu).

- A capitalization report will round out the project. It will synthesise the acquired benefits and gains accruing from the project and its pilot activities, and indicate how transferring good practices of forest management and governance of local and regional entities to other areas in the MED Programme area. This report will be largely based on the work carried out by the peer group.

- At the project mid-term, the project leader commissioned a quality assessment to an independent auditor. The aim was to estimate the quality and relevance of the undertaken activities in the light of project initial objectives and, as a consequence, to suggest certain adaptation measures in order to improve the project implementation for the remaining period.

The partners publish, in a cooperative way when it is possible, some guides and reports such as:

- preliminary diagnosis and surveys;
- methodological guides for the elaboration of Wildfire Prevention Plans (Valencia);
- “Tool Box” for the conception, management, monitoring and assessment of protected wooded areas (WWF);
- communication strategy for integrated forest management (Alpilles);
- technical guides for multi-purpose management of forests (Luberon);
- a methodology for conducting sociological surveys and studies (Alpilles and Taranto).

Overall, QUALIGOUV tries to achieve cooperative sharing among the various Mediterranean-based initiatives that focus on the forests and natural areas management, and thus foster their mutualisation in order to speak to European and international organisms with one specifically identifiable “shared Mediterranean voice”. Through the representation and participation of different Mediterranean woodlands stakeholders, QUALIGOUV aims at bringing out problematics and overall relevant solutions that need to be transmitted to decision-makers and policy-makers (“bottom-up” approach).

## Coordination, evaluation and capitalization: a proved method

### Project leader and coordination

The General Direction of Natural Heritage and Biodiversity of the Region of Murcia is the leader of the project. It coordinates the implementation of QUALIGOUV. It means that it is responsible for the project's good execution at institutional, technical and financial levels.

A steering committee, directed by the leader, has been set up since the beginning of the project in order to take care of the respect of the commitments established with the European Union through the application file.

### International Association for Mediterranean forests (AIFM)

Every issue related to Mediterranean forests interests and/or involves, more or less directly, different social and professional communities. Therefore, to respond to the various problematics and stakeholders of the Mediterranean forests, the International Association for Mediterranean Forests (AIFM), created in 1996, aims at facilitating exchanges of knowledge, experiences or simple ideas, thanks to a crosscutting and multidisciplinary approach.

To achieve these objectives, the AIFM initiated and moderates a network of organizations and individuals (approximately 3,000 international contacts) including experts of various skills (foresters, environmentalists, scientists, politicians, civil security) and other concerned actors, ensuring a horizontal approach. AIFM also publishes a magazine (“The latest on Mediterranean forests”) in French and in English, monitors a website ([www.aifm.org](http://www.aifm.org)), attends and organizes some events related to the Mediterranean forests, etc.

Otherwise, the AIFM participates in and/or coordinates projects of decentralized cooperation through the European programmes Interreg II and III: “Problematics of the Mediterranean forest” (1999-2001) and RECOFORME (2003-2006). Recently, within the MED Programme framework, AIFM also initiates the FOR CLIMADAPT project “Adaptation of Mediterranean woodlands to climate change” (2010-2013) and the PROFORBIOMED strategic project “Promotion of residual forestry biomass in the Mediterranean basin” (2011-2014).

Step by step, the AIFM appears as the only NGO dedicated to Mediterranean natural and wooded areas in all their aspects. Through its international activities, it tries to enhance the emergence of a “shared voice” on the Mediterranean forests and a larger audience contributing to the visibility of these ecosystems specificity on an international level.

## Capitalization and communication strategy

Capitalization is a strong dimension of our methodology. It is based on three elements<sup>2</sup>:

- A field trip on the different pilot sites during the seminars, in order to debate and to learn together thanks to a direct confrontation with local stakeholders and field realities.
- The establishment of a group of experts (peer group) composed by independent and competent persons responsible for the analysis of the pilot projects. It is conducted by the AIFM as an independent partner (out of pilot activities).
- A qualitative assessment by an independent auditor at mid-term of the project implementation.

These methodological tools should enable the project to extract good practices and to analyze the bad ones, suggest improvement solutions and identify elements that are transferable to other Mediterranean areas. The practices may include forestry tools, techniques or methods, regarding to governance and quality in forest management.

There is no capitalization without communication about the results and achievements. For this, the dissemination must be firstly implemented at local level, on each pilot site and between local stakeholders, and then between partners (see Map 1).

Finally, QUALIGOUV also commits to the dissemination of the results and achievements beyond the project; like towards other cooperation projects or initiatives, international agencies and through the AIFM's Mediterranean network. For this, some communication means are dedicated to QUALIGOUV ([www.qualigouv.eu](http://www.qualigouv.eu), notebooks, newsletters, reports...) and are completed by means developed by each partner (posters, magazine, WebPages, press releases...).

The main objective of this second progress book is to inform widely about the actual state of the project and its eventual difficulties and imperfections.

2 - The capitalization strategy of the project was highlighted in particular during the process of capitalization organized by the MED Programme.

## Experienced partnership

All the partners have experience in international cooperation through decentralized or multilateral collaboration processes. The AIFM, the Region of Murcia, the Generalitat Valenciana and the Regional Natural Park of the Alpillles have already been partners of an Interreg IIIB cooperation project: RECOFORME “Structuring Networks and Cooperative Action Concerned with Mediterranean Forests”, where they acquired and exchanged good practices and established a network of institutions and individuals. The French National Forestry Office has extensive experience of cross-border projects with Italian partners of Piedmont and Lombardy. The WWF MedPO, based in Rome, is a regional branch dedicated to the Mediterranean area. It developed a pan-Mediterranean network in favour of preserving the biodiversity of this “biodiversity hot spot”.

The pilot territories are located in 8 regions of the MED area: Murcia, Valencia (Spain), Provence-Alpes-Côte d'Azur (France), Puglia, Sardinia (Italy) and the Algarve and Alentejo Regions (Portugal) through the action of the WWF (Fig. 1).

The pilot sites are located in natural reserves, parks, Natura 2000 sites and other areas where biodiversity preservation is a major issue.

The QUALIGOUV project is coordinated by the General Direction of Natural Heritage and Biodiversity belonging to Agriculture and Water Council of the Autonomous Region of Murcia. Its skills and missions are the conservation and the preservation of the natural heritage. Two Services are mobilized:

- Information and environmental integration, in charge of the administrative and financial management of the project,
- Hunting, fishing and defence of the natural environment, in charge of environmental data collection and wildfires management.

The partners all participated in diverse initiatives in connection with the QUALIGOUV problematics, within the framework of community programmes or more specific action.

# Presentation of the partners, the pilot sites and their context, and the project activities



Map 1: Localization of partners' Regions and pilot territories or the QUALIGOUV projet

## Region of Murcia (Lead partner of the project)



Website:

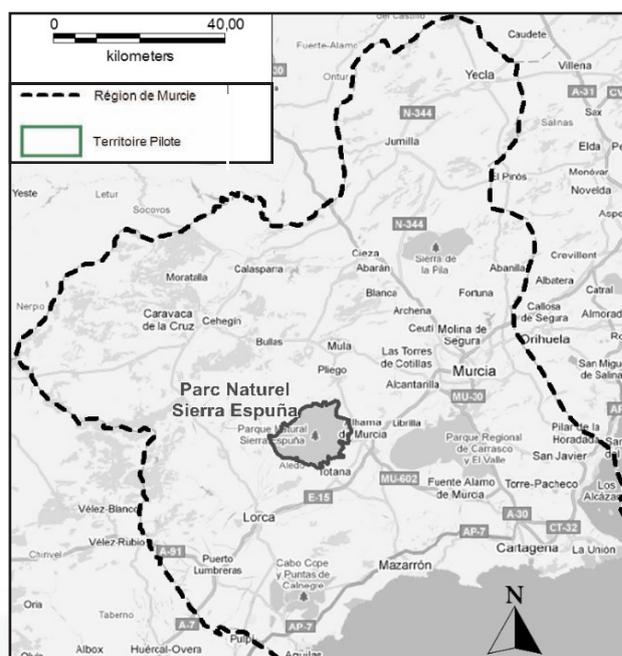
[www.murcianatural.com](http://www.murcianatural.com)

Contact:

Eng. Juan de Dios CABEZAS CEREZO  
[juand.cabezas@carm.es](mailto:juand.cabezas@carm.es)

A technical support is given by the Region of Murcia to the Regional Natural Park of Sierra Espuña, pilot site of the project (see Maps 2 and 3).

The regional woodlands are considered as some of the most singular in Europe with a high number of Ibero-African endemic species coexisting with properly Iberian species (more than 2000 vegetal species).



Map 2: Localization of the pilot territory in the Region of Murcia

## Regional Natural Park of Sierra Espuña

### Identity file of the protected area (see Map 3)

- ▶ Date of creation: 1992 (protected since 1916)
- ▶ Population: 68,180 inhabitants
- ▶ Superficy: 178 km<sup>2</sup>
- ▶ Number of municipalities: 3
- ▶ Main cities: Alhama de Murcia, Mula, Totana
- ▶ Nearest agglomeration: 30 km from Murci
- ▶ Main economic sectors: Agriculture, breeding, salting, tourism...
- ▶ Other: A lot of protected areas (Natura 2000, "Protected landscape" of Barrancos de Gebas)

In this context, forest activities are very concentrated on comarcas (inter-municipality authorities) inside the Park. Their economical importance is weak but essential as an income source for the mountainous area populations, and as a tool for the natural resource management and conservation.

The main vegetal populations are Sabin wood (*Juniperus phoenica*), the Thermo-Mediterranean ones, such as palm trees, as well as Meso and Supra-Mediterranean ones to which are linked populations of *Sedum sediforme*, rare short oaks formations on calcareous soil and shadowed dolomites.

There are also specific populations of brooms, like *Genista valentina*, endemic rock plants populations like *Centaurea saxicola*, *Lafuentea rotundifolia*, *Teucrium rivasi* and *Erodium saxatile*, some very singular rockrose on clay soils (*C. laurifolius*, *C. populifolius*, etc.), and willows near to the Espuña river (*Salix pedicellata* and *Erica eri-*

gena). Other important species are *Fumana fontanesii* (unique stand in Europe) and *Rhamnus lycioides* subsp. *atlantica* (unique stand in the Region, and probably in the Iberian Peninsula).

### Presentation of the wooded areas

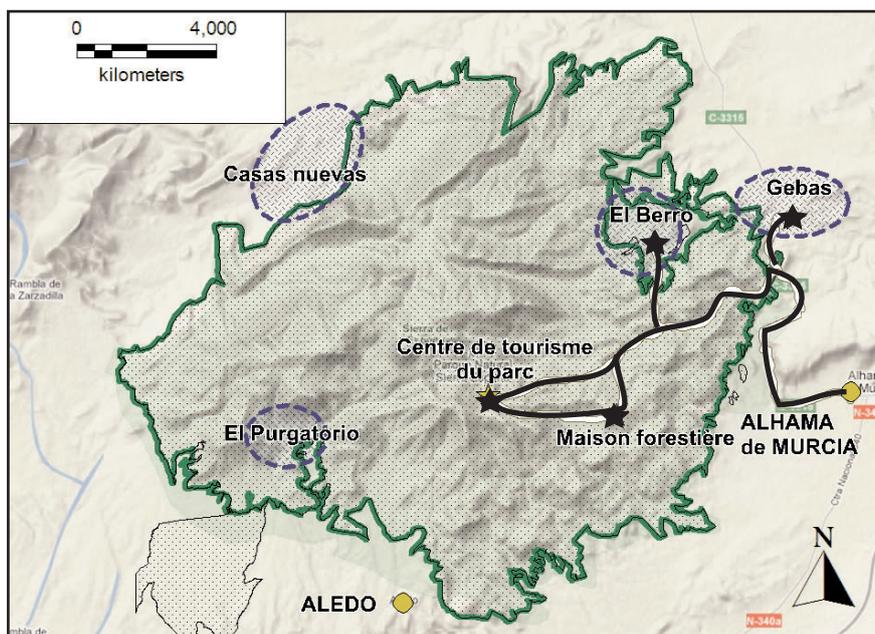
- ▶ Regional forest cover: 4,900 km<sup>2</sup> (45%)
- ▶ Forest cover in the Park: 142 km<sup>2</sup> (80%)
- ▶ Main forest essence(s): *Pinus halepensis*
- ▶ Main forest valuations: Biodiversity, landscapes
- ▶ Forest land ownership: 30% private; 70% public

### Forest governance and protected area management

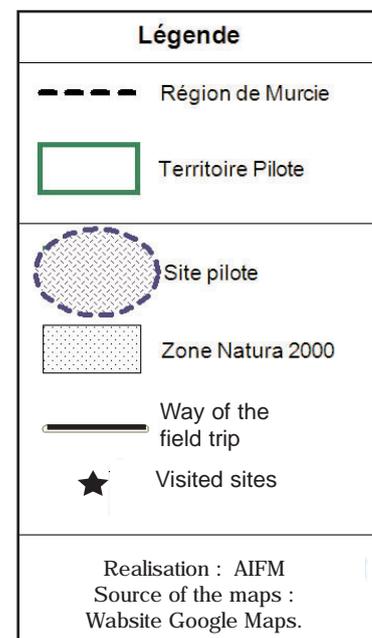
- ▶ Scientist committee: Yes
- ▶ Thematic commissions related to the forest management in the area: Yes (farming property)
- ▶ Frame documents in application: Natural Resources Management Plan (PORN, 1995), Director implementation and Management Plan (PRUG, 2002), Forest Development Plan (PSF).
- ▶ Geographic Information System (GIS): Yes

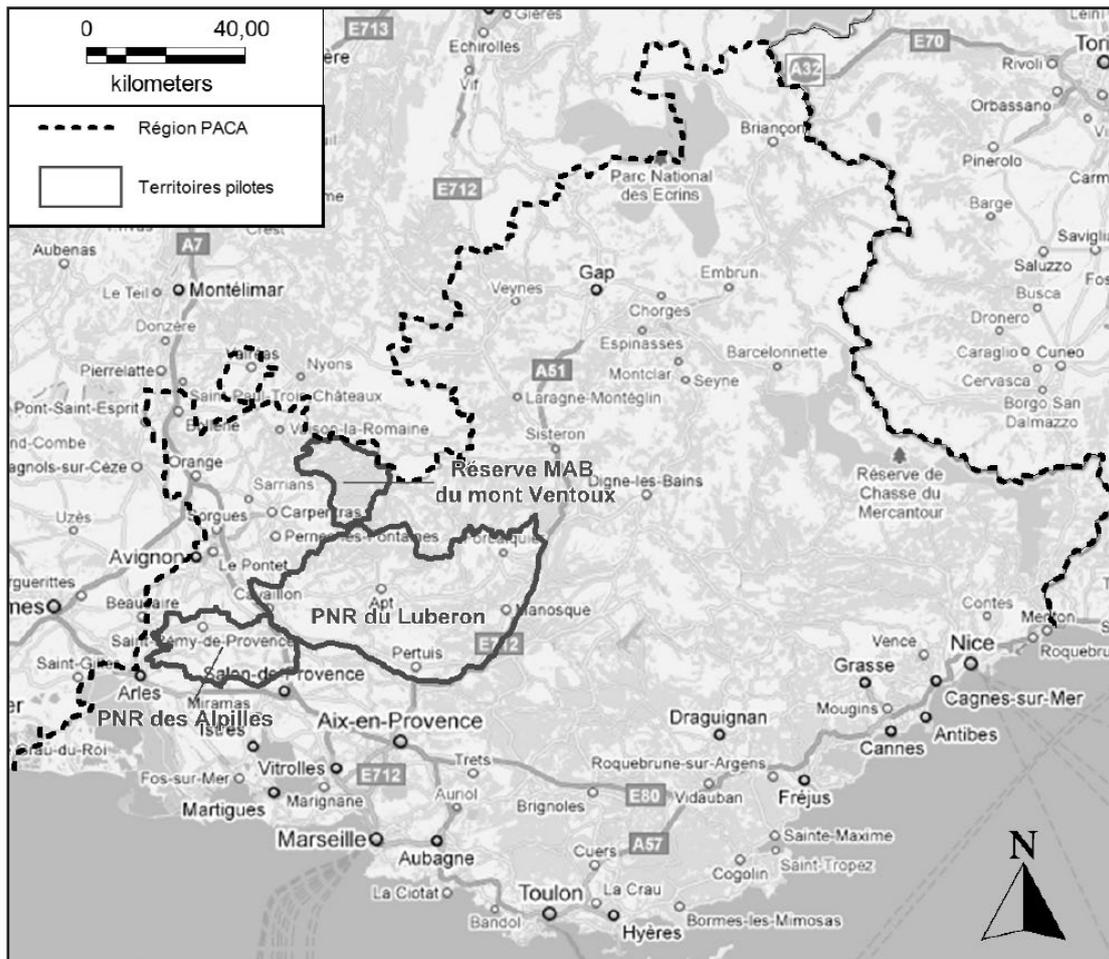
## Pilot project

The main pilot activity of the Region of Murcia is the implementation of Master Plans, local consultation tools (see progress book No. 1, pages 23 to 26) in 4 small villages surrounding the Natural Park of Sierra de Espuña (see Map 3). It implies, in particular, the realization of detailed territorial diagnosis and the organization of numerous meetings of dialogue with the local stakeholders.



Map 3: General view of the Natural Park of Sierra Espuña





Map 4: Localization of the pilot territories in the Region Provence-Alpes-Côte d'Azur

## Regional Natural Park of Alpilles



Website:  
<http://www.parc-alpilles.fr/>

Contact:  
 Mr. Jean-Michel PIRASTRU  
[jm.pirastru@parc-alpilles.fr](mailto:jm.pirastru@parc-alpilles.fr)

### Partner's presentation

Calcareous block of 30 km length and 10 km large,

### Identity file of the protected area

- ▶ Date of creation: 2007
- ▶ Population: 42,000 inhabitants
- ▶ Superficy: 550 km<sup>2</sup>
- ▶ Number of municipalities: 16
- ▶ Main cities: Cavaillon, Salon de Provence, St-Martin-de-Crau, St-Rémy-de-Provence, St-Etienne-du-Grès, Les Baux-de-Provence
- ▶ Nearest agglomérations: 10 km from Salon-de-Provence and Arles, 20 km from Avignon, 70 km from Marseille, Aix-en-Provence and Nimes
- ▶ Main economic sectors: Tourism, services, agriculture (olives, cereals, arboriculture...)
- ▶ Other: A lot of protected areas (Natura 2000, French directive for landscape protection, archeologic sites...)

the Alpilles Massif is the last mountain before the Rhône's delta. Isolated between both valleys of the Rhône and the Durance, and both plain territories of the Comtat Venaissin and Crau, the Alpilles looks like an island (see Map 4).

Between the urban areas of Marseille, Nîmes and Avignon, the Regional Natural Park of Alpilles (PNRA) gathers 16 municipalities about a shared project: the Park Charter. The population, partly seasonal, is constantly growing (+33% since 1975).

In spite of this, more than 4000 years of human presence have shaped the countryside and created a natural habitats mosaic hosting a rich biodiversity, and in particular a hundred of rare and protected species like Bonelli's eagle, Eurasian eagle-owl, Spring snowflake, different sorts of orchids, etc.

Inside this territory, forest has an important place. More than 19,000 ha of Mediterranean forest around populated areas motivate the main competence and priority of the Park: fighting against wildfire and restoration of burnt areas. Traditionally considered, by local population and decision-makers, as a free space where anyone can have a walk, hunt or just meet friends, the forest is today submitted to new expectations from society (in particular recreation and tourism).

The action of prevention and maintenance carried out by the Park and other operators (ONF, CRPF,...) are not always well understood or accepted by local population.

In front of these challenges, the strategy of the Park relies on two complementary orientations:

- To protect the massif against wildfire.
- To promote a global forest management in order

to take into account the social demand of reception, relaxation and conviviality, promoting a sustainable valuation of the natural resources.

The missions of the Park are defined by the Charter, for the period 2007-2019.

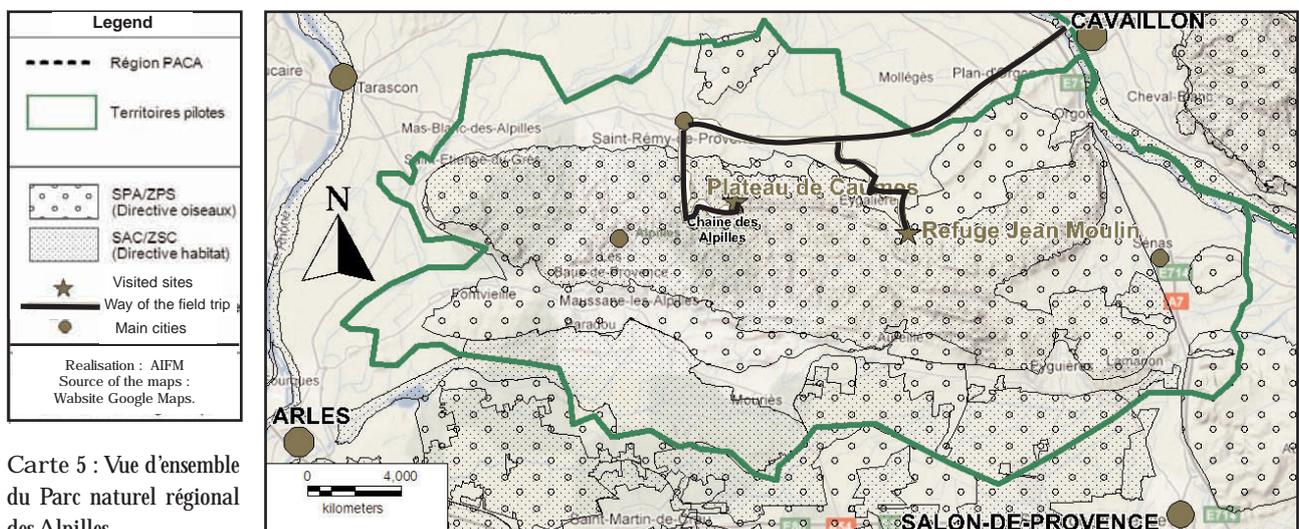
For the PNRA, to participate in the QUALIGOUV project is an opportunity to inventory, assess and reinforce its practices in terms of governance and communication for a sustainable woodlands management. The resulting actions concern its whole territory.

#### Presentation of the wooded areas

- ▶ Regional forest cover: 15 000 km<sup>2</sup>
- ▶ Forest cover in the Park: 190 km<sup>2</sup> (35%)
- ▶ Main forest essence(s): *Pinus halepensis*, *Pinus sylvestris*
- ▶ Main forest valuations: Decking (paper industry), tourism, fuelwood
- ▶ Forest land ownership: 50% private; 50% public

#### Forest governance and protected area management

- ▶ Scientist committee: No
- ▶ Thematic commissions related to the forest management in the area: "Town and country planning", "Urbanism and landscape", "Natural heritage and human activities"; their actions are validated by a Syndical Committee
- ▶ Frame documents in application: Charter of the Natural Regional Park (2007-2019)
- ▶ Geographic Information System (GIS): Yes



Map 5: General view of the Regional Natural Park of Alpilles

## Pilot project

The Alpilles project consists in improving the acceptability (in terms of environment, landscape and social expectations) of the forestry works for wildfire prevention. The project concretely consists in:

- realising a forest governance diagnosis in itinere;
- realising a sociological study aimed at better knowing the stakeholders' expectations and perceptions toward Alpilles woodlands;

- establishing interactive electronic boxes allowing to collect public opinion about forestry works;
- elaborating a governance and communication strategy for forest management in the Park.

Each one of these deliverables will be realized in close collaboration with all the project partners.

For more details, see the Progress book No. 1 (pages 26 à 29).

## Regional Natural Park of Luberon



Website :  
<http://www.parcduluberon.fr/>

Contact:  
Mrs Aline SALVAUDON  
[aline.salvaudon@parcduluberon.fr](mailto:aline.salvaudon@parcduluberon.fr)

## Partner's presentation

The Regional Natural Park of Luberon (PNRL) is a protected area in the heart of Luberon mountains, that are low elevated and extending from East to West between the Alpes-de-Haute-Provence and Vaucluse provinces. It is limited at South by the Durance river, including three mountainous massifs: Grand Luberon, Luberon Oriental, and Petit Luberon. He is encircled by the Natural Regional Park of Alpilles on the Southwest, and by the Natural Regional Park of Verdon on the East (see Map 4).

The Park provides shelter for exceptionally diverse fauna and flora, as well as architecture (in particular dry stone constructions) and landscapes of great heritage value. That is why the Park was granted, in 1997, as a Man & Biosphere reserve (UNESCO recognition).

The PNRL's missions are defined by its Charter for the period 2009-2021.

## Sites of Ogres and East Luberon

Two pilot sites (Roussillon's Ochres and the Eastern Luberon, besides Villeneuve, see Map 6) have been chosen thanks to their various stakes in terms of protection against wildfires, woodlands promotion and biodiversity preservation (see details in the second seminar report).

## Pilot project

Pilot activities in the Luberon consist in 8 main steps:

- Step 1: Identification of the pilot sites.
- Step 1': Mobilisation of the local relays.
- Step 2: Diagnosis of the natural and human environment: opportunities, constraints and stakes.

### Identity file of the protected area

- ▶ Date of creation: 1997
- ▶ Population: 170,000 inhabitants
- ▶ Superficy: 1,850 km<sup>2</sup>
- ▶ Number of municipalities: 72
- ▶ Main cities: Cavaillon, Pertuis, Apt, Manosque, Forcalquier
- ▶ Nearest agglomeration: 10 km from Avignon and Aix en Provence, 30 km from Marseille, 30 km from Orange
- ▶ Main economic sectors: Tourism, services, agriculture (arboriculture, cereals, vegetables, wine, lavender...) and breeding
- ▶ Other: A lot of protected areas (Natura 2000, Man and Biosphere Reserve...)

- Step 3: Diagnosis of the land property and the profile of the owners.

- Step 4: Dialogue (local stakeholders and organizations) and objectification of the collective stakes and the socio-cultural constraints / implementation of tools for dialogue.

- Step 5: Definition of the local rules of governance with legal status for grouping, formalization of the orientations of management, certification.

- Step 6: Implementation of the management and contractualisation of the supplies.

- Step 7: Evaluation and systems of technical, environmental and socio-cultural follow-up.

- Step 8: Distribution of the results and capitalisation at a local scale (forest Charter of the Park of Luberon, QUALIGOUV project).

The organization of some open events, such as the festival "4 seasons of the forest", are also part of the activities of the Park within the framework of the QUALIGOUV project. Besides, the regional Natural reserve of Luberon has got its own martélescope and a certain experience on the subject. It can so bring a precious expertise on the subject to the ONF, which experiments the implementation of an equivalent equipment on the Mont Ventoux (cf. Pages 14-15).

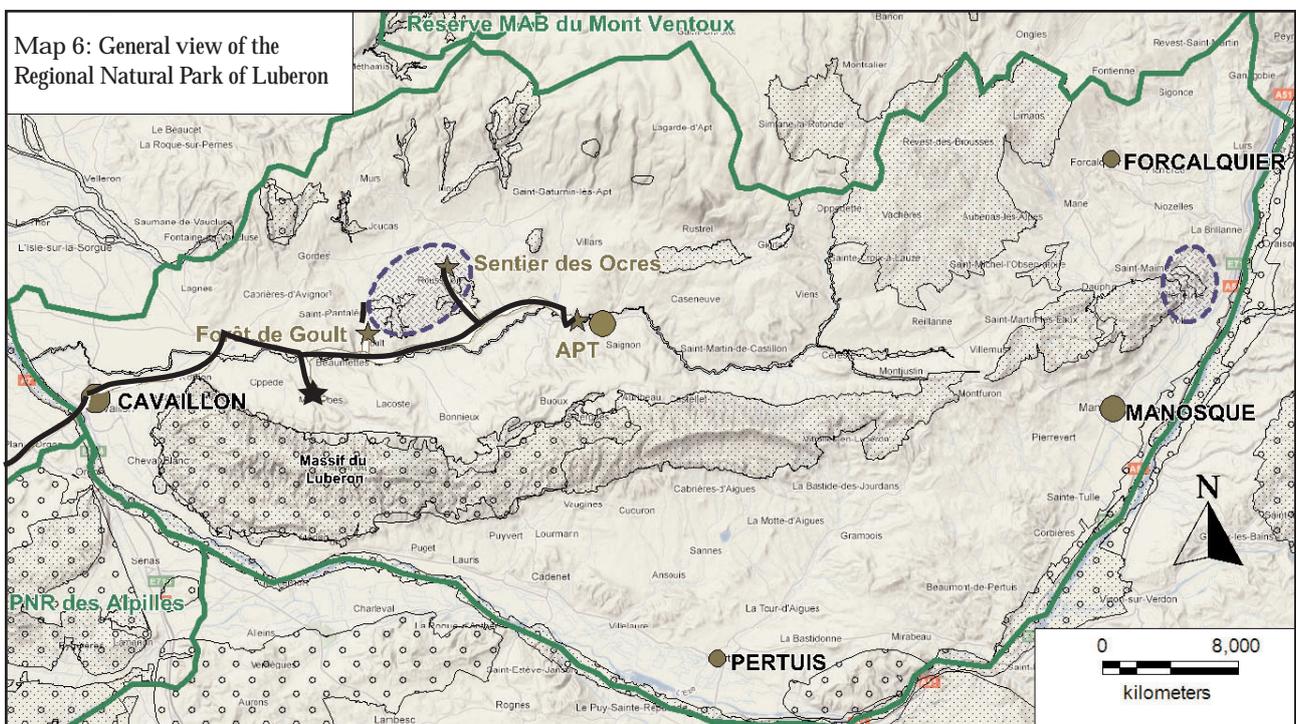
### Presentation of the wooded areas

- ▶ Regional forest cover: 15,000 km<sup>2</sup>
- ▶ Forest cover in the Park: 950 km<sup>2</sup> (51%)
- ▶ Main forest essence(s): Pinus halepensis, Pinus sylvestris, Quercus pubescens, Cedrus atlantica
- ▶ Main forest valuations: Decking (paper industry), tourism, fuelwood, timber
- ▶ Forest land ownership: 72% private; 28% public

### Forest governance and protected area management

- ▶ Scientist committee: Yes
- ▶ Thematic commissions related to the forest management in the area: "Forest and natural areas", which actions are validated by a Syndical Committee
- ▶ Frame documents in application: Charter of the Natural Regional Park (2009-2021) and Forest Territory Charters of "PNR du Luberon" and "Montagne de Lure"
- ▶ Geographic Information System (GIS): Yes ([www.atlas-parcduluberon.com](http://www.atlas-parcduluberon.com))

For more details, see the Progress book No. 1 (pages 30 à 33).



Legend		
	Territoires pilotes	
	Visited sites	
	Way of the field trip	
	SAC/ZSC (Directive habitat)	
	SPA/ZPS (Directive oiseaux)	
	Site pilote	
Realisation : AIFM Source of the maps : Website Google Maps.		

## French National Forestry Office



Website:

<http://www.onf.fr/mediterranee/>

Contact:

Mr. Philippe BOURDENET  
[philippe.bourdenet@onf.fr](mailto:philippe.bourdenet@onf.fr)

### Partner's presentation

Created in 1966, the French National Forestry Office (ONF) is a public organism with industrial and commercial competences. Its main missions are the management of public forests submitted to the forestry regime (according to the national Forestry Code), as well as the implementation of general interest missions delegated by the French State. The ONF also develops other services like management implementation, expertises, forestry works, for any kind of customers on these fields: natural areas sustainable management, environment protection, wood exploitation and territorial development.

The ONF is organized in 9 territorial directions, 5 regional directions, 50 agencies, 9 works agencies and more than 500 operating units. The territorial direction that participates in QUALIGOUV project is ONF Méditerranée. It covers the whole territory of both Regions of Provence-Alpes-Côte d'Azur and Languedoc-Roussillon.

Facing threats like wildfires and erosion, the ONF Méditerranée carries out preventive measures integrating it in the planning documents, by setting up and maintaining specific protection equipments for fighting against forest wildfires (Défense des forêts contre l'incendie) and for mountain land restoration (Restauration des terrains de montagne, RTM).

### The Mont Ventoux Biosphere Reserve (see Map 7)

The Mont Ventoux (the "Géant de Provence") is located in the North of the Region Provence-Alpes-Côte d'Azur, encroaching the Region Rhône-Alpes in the South of the province of Drôme (see Map 4). Its biocli-

### Identity file of the protected area

- ▶ Date of creation: 1990
- ▶ Population: 5 habitants en zone centrale, 38 000 inhabitants including the coopération zone
- ▶ Superficy: 21 km<sup>2</sup> (zone centrale), 268 km<sup>2</sup> (incluant la zone tampon), 894 km<sup>2</sup> (including the coopération zone)
- ▶ Number of municipalities: 34
- ▶ Main cities: Carpentras, Pertuis, Apt, Manosque, Forcalquier
- ▶ Nearest agglomeration: 10 km from Carpentras, 30 from Avignon
- ▶ Main economic sectors: Tourism, services, agriculture (arboriculture, lavender, wine, truffles...), breeding
- ▶ Other: Classified area; decree of biotope protection (Arrêté de Bbiotope); natural areas with ecologic, floristic and faunistic interest (Zones Naturelles d'Intérêt Ecologiques, Faunistiques et Floristiques); Biosphère Reserve (MAB); Natura 2000 Sites; integral biological Reserves; Regional Naturel Park creation in project

matic characteristics and historical memory induce diverse stakes in terms of country planning and natural resources management on a large scale.

This preoccupation should evidently find a concrete prolongation, in terms of forestry planning, and orient the different actions that the managers have to carry out in the area with numerous and diverse stakeholders.

During centuries, the forests of the Mont Ventoux have been overexploited for coal, timber production and grazing. At the end of the 18<sup>th</sup> century, the mountain was completely deforested. Roots did not structure the soil anymore and the mountain could not retain its weight. Landslides swept away roads and villages.

Important works of mountain land restorations (RTM), launched by the Waters and Forests Administration, were implemented by the ONF. They have been carried out during more than half a century.

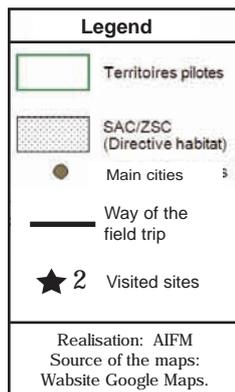
The remarkable diversity of areas managed by the ONF is explained by the specificity of this mountain that, in spite of its low elevation (1,909 m), presents an altitudinal graduation, with 5 main vegetation levels, from typically Mediterranean vegetal formation with Holm oak, until upper grassland with alpine influences. So we can inventory more than 1,200 plants species, among which we find a lot of protected, rare or endemic species.

The main stakes on this massif are the following ones:

- Soil protection.
- Wood production.

- Habitats and species protection.
- Tourism, leisure and public reception.

The site management is conducted by the Mixt Syndicate for Mont Ventoux Management and Equipment (Syndicat mixte d'aménagement et d'équipement du Mont Ventoux, SMAEMV).



Since 1996, a steering committee gathers decision makers, administrations, managers, users, local associations, etc. It assists the coordination structure of the SMAEMV in its orientations. This steering committee has drafted the Reserve management plan, defining the actions to be implemented for the protection and promotion of natural heritage, sites and landscapes, for the sustainable economic development, or also for education.

Otherwise, a research frame programme, written by elected people from the SMAEMV and by the steering committee's members, defines the priorities in terms of research topics. This programme is now applicable to the scientific committee of the Biosphere Reserve.

## Pilot project

The pilot project of the ONF is articulated by several actions aimed at improving governance and forest management quality.

A first action consist in inventorying the available fuel wood and timber resources. Then, a pilot forest exploitation sequence will be carried out and concluded by a qualitative selection process leading to a distinct valorization of the logs as fuel or timber.

A pedagogic governance tool, the "Marteloscope", is being experimented, in order to inform and educate different publics to the integrated forestry. In a wooded compartment (more or less than 1 ha), all the trees are numbered and inserted into a data base according specie, age, and ecological value categories. The participants tick the trees they think that have to be cut. The results are entered in an computer program, which allows to make a simulation of the long-term consequences of the cut. This system has been used for 10 years as a pedagogic tool for students, professionals, tourists, etc. You can have a look on the numerical mateloscope developed in Haute-Savoie province on the web page: <http://www.megeve.com/marteloscope/>.



Map 7: General view of the Biosphere Reserve of the Mont Ventoux

Another activity concerns the setting up of pockets of senescence, in order to allow a natural evolution in some parts of the forest.

Finally, a timber worksite using animal strength (workhorses) was experimented as an alternative to the mechanic haulage. Workhorses are supposed to be more efficient on these steepy lands with high biodiversity protection stakes.

Economic and environmental balances of each one of these activities will be realised, in order to assess their pertinence and viability.

For more details, see "Project progress and partial results" pages 23 to 31.

### Presentation of the wooded areas

- ▶ Regional forest cover: 15,000 km<sup>2</sup>
- ▶ Forest cover in the Park: 150 km<sup>2</sup> including the central zone and the buffer zone (56%)
- ▶ Main forest essence(s): *Pinus halepensis*, *Quercus ilex*, *Cedrus atlantica*, *Fagus sylvatica*, *Pinus uncinata*
- ▶ Main forest valuations: Decking (paper industry), fuelwood, tourism, timber
- ▶ Forest land ownership: 25% private; 75% public

### Forest governance and protected area management

- ▶ Scientist committee: Yes
- ▶ Thematic commissions: Yes, among them, the steering committee
- ▶ Frame documents in application: Massif Plan will be elaborated soon within the framework of the future Natural Regional Park Charter elaboration
- ▶ Geographic Information System (GIS): Yes

# Generalitat Valenciana



Website:

<http://www.cma.gva.es/intro.htm>

Contact:

Eng. Jorge SUAREZ

[suarez\\_jor@gva.es](mailto:suarez_jor@gva.es)

## Partner's presentation

The Generalitat Valenciana, gathering all the institutions of the autonomous Region of Valencia, participates in the QUALIGOUV project through its General Direction of Natural Environment Management, responsible of the forest management policy, hunting, fishing, biodiversity and environmental impact, protected natural areas management and wildfire prevention.

The service "Wildfire Prevention and Forest Health" has the direct responsibility of the project. Its usual role is the wildfires prevention, fix and mobile surveillance, enhancing the volunteerism, development of a preventive silviculture, creation of prevention infrastructures, realization of statistical reports and researches about wildfires causes and forest health.

All these functions are exercised in all the Region of Valencia woodlands (more than 1 million ha) independently of the private or public propriety regime. However, wooded areas included in the natural parks network of the Region of Valencia constitute the priority for wildfire prevention actions.

This double problematic, of natural parks management and wildfire prevention, guides the Valencia Region actions in the QUALIGOUV project framework. The wildfire prevention service already has an important experience in that field as it developed, for years, wildfire prevention planning action in the protected natural areas, contributing to improve their governance.

Otherwise, this service has also an experience in similar cooperation projects with different European partners, among which the RECOFORME project "Structuring Networks and Cooperative Action Concerned with Mediterranean Forests" (Interreg IIIB Medocc).

## Localization and presentation of the pilot sites

The Region of Valencia is located on the Oriental coast of the Iberian Peninsula. This Region is characterized by its diversity, strong Mediterranean influence and large natural and wooded areas (more than 53% of the regional territory). The woodlands are mainly private at the regional scale (67%).

The Generalitat Valenciana has suggested some natural parks from the regional network as pilot territories (see Map 8), with a particular accent on the following parks: Chera - Sot de Chera and Puebla de San Miguel that are the more recent, Turia and Sierra Calderona that are the nearest from the metropolitan area of Valencia, which count more than 1.5 million inhabitants.

Natural Parks management is the exclusive competence of the Generalitat Valenciana through the corresponding Direction. Each Park has a conservation

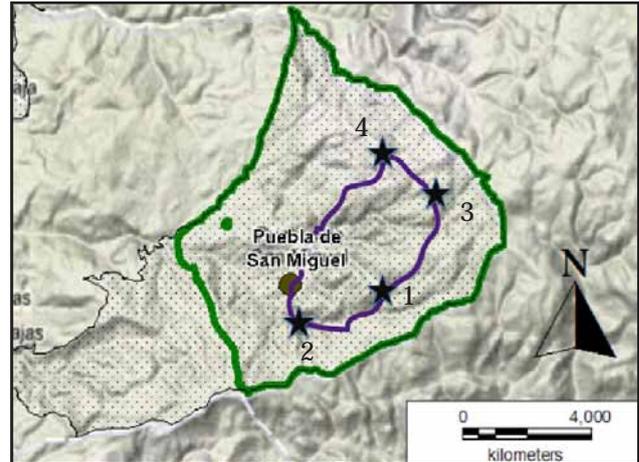


Map 8: Localization of the pilot territories in the Region of Valencia

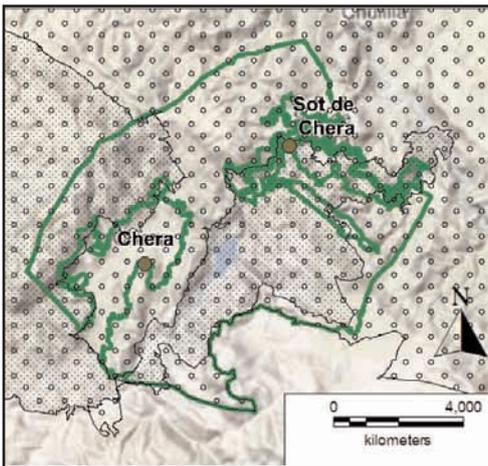
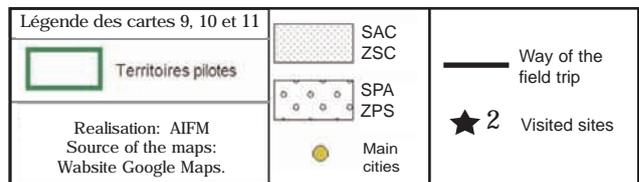
## Natural Park of Puebla de San Miguel

The Park of Puebla de San Miguel has been the goal of the field trip in October 20th, 2010, during the seminar of Valencia. Remarkable points of this trip (stars on the map) were: 1 = Micro-Reserve Las Blancas; 2 = Mirador El Bueno; 3 = Micro-Reserve Pino Vicente; 4 = Observatory El Gavilan.

- ▶ Date of creation: 2007
- ▶ Population: 66 inhabitants
- ▶ Superficy: 64 km<sup>2</sup>
- ▶ Nombre of municipalities: 1
- ▶ Main cities: Puebla de San Miguel
- ▶ Nearest agglomeration: 160 km from Valence, 100 km from Requena, 50 km from Teruel
- ▶ Main economic sectors: Agriculture, forestry, tourism
- ▶ Forest cover in the Park: 59 km<sup>2</sup> (92%)
- ▶ Main forest essence(s): *Juniperus thurifera*, *Taxus baccata*, *Pinus nigra*, *Pinus silvestris*
- ▶ Forest land ownership: 13% private; 87% public



Carte 9 : Vue d'ensemble du Parc naturel de Puebla San Miguel



Map 10: General view of the Natural Park of Chera-Sot

## Natural Park of Chera - Sot de Chera

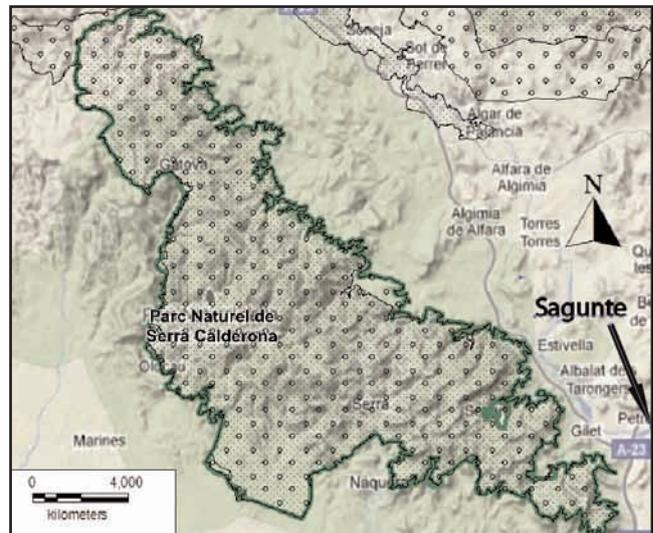
The relief of the Park of Chera-Sot de Chera (see Map 10) is very uneven and mountainous, located on a seismic fracture. It is the first geologic Park in the region. In spite of the forest fires, which affected the region, it constitutes an important representative forest of the Mediterranean area.

- ▶ Date of creation: 2007
- ▶ Population: 1,000 inhabitants
- ▶ Superficy: 65 km<sup>2</sup>
- ▶ Nombre of municipalities: 2
- ▶ Main cities: Chera, Sot de Chera
- ▶ Nearest agglomeration: 80 km from Valence, 20 km from Requena
- ▶ Main economic sectors: Agriculture, tourism
- ▶ Forest cover in the Park: 59 km<sup>2</sup> (90%)
- ▶ Main forest essence(s): *Pinus pinaster*, *Pinus halepensis*, *Quercus rotundifolia*, *Quercus faginea*, *Taxus baccata*
- ▶ Forest land ownership: 8% private; 92% public

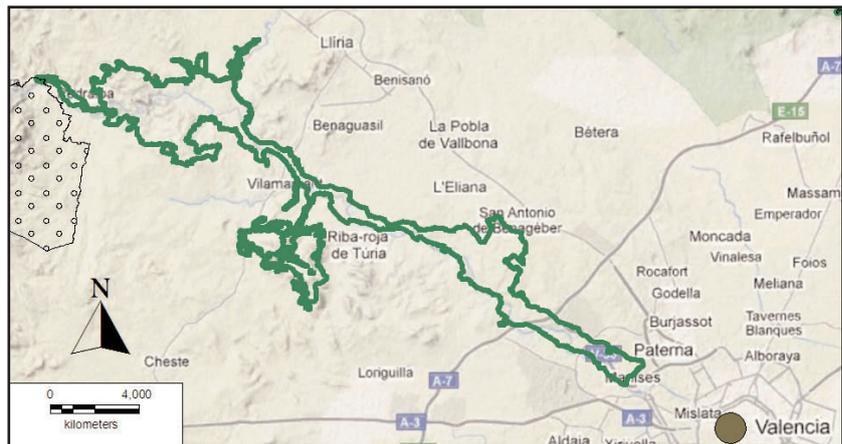
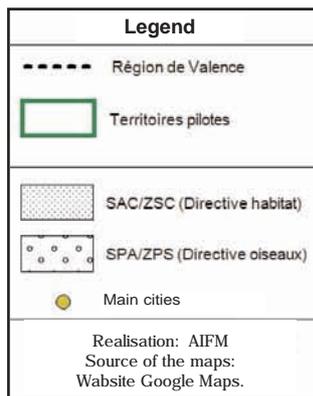
## Natural Park of Serra Calderona

The Park of Serra Calderona (see Map 11) is located few kilometres from Valencia city, and possesses one of the better preserved Mediterranean forests, covering more than 45,000 ha.

- ▶ Date of creation: 2002
- ▶ Population: 97,000 habitants
- ▶ Superficy: 180 km<sup>2</sup>
- ▶ Nombre of municipalities: 18
- ▶ Main cities: Serra
- ▶ Nearest agglomeration: 50 km from Valence, 20 km from Segunte
- ▶ Main economic sectors: Agriculture, tourism
- ▶ Forest cover in the Park: 158 km<sup>2</sup> (88%)
- ▶ Main forest essence(s): *Pinus pinaster*, *Pinus halepensis*, *Quercus ilex*, *Quercus suber*
- ▶ Forest land ownership: 64% private; 36% public



Map 11: General view of the Natural Park of Serra Calderona



Map 12: General view of the Natural Park of Turia

### Natural Park of Turia

The Park of Turia (see Map 12) is a meeting between two different reliefs: the Iberian Peninsula and the Turia river plain. This union creates a highly varied landscape, with a remarkable variety of habitats and an environment with a high ecological value.

- ▶ Date of creation: 2007
- ▶ Population: 200,000 inhabitants
- ▶ Superficy: 46 km<sup>2</sup>
- ▶ Number of municipalities: 9
- ▶ Main cities: Manises, Paterna, Riba-roja, l'Eliana, Vilamarxant et Pedralba
- ▶ Nearest agglomeration: 5 km from Valence, 10 km from Liria
- ▶ Main economic sectors: Services, tourism
- ▶ Forest cover in the Park: 27 km<sup>2</sup> (59%)
- ▶ Main forest essence(s): *Pinus halepensis*
- ▶ Forest land ownership: 50% private; 50% public

Director pointed by the regional Ministry of Environment who takes the decisions related to the management. A boarding committee (collegial entity with only a consultative power) meets periodically and takes acknowledgment of implemented or foreseen activities in the Park. It is composed by representatives of local municipalities, Valencian Provinces, universities, syndicates, environmentalist associations, hunting societies, etc.

### Forest governance and protected areas management in the Region of Valencia

- ▶ Scientist committee: Yes
- ▶ Thematic commissions: Yes
- ▶ Frame documents: Natural Resources Management Plan (Plan de Ordenación de los Recursos Naturales, PORN), Director Plan for Uses and Management, Fire Prévention Plan in the Naturels Parks
- ▶ Geographic Information System (GIS): Yes

### Pilot project

In all these areas, wildfire risk is permanent, whatever its origin (accident, crime, natural...). That is why it requires the elaboration of prevention measures.

In the continuation of RECOFORME project, the Generalitat Valenciana would like to improve the forest management planning in order to face the stakes and interests, sometimes contradictory, on these sensitive territories. Firstly, a wildfire prevention plan for protected areas will be elaborated in the Chera-Sot de Chera and Puebla de San Miguel Natural Parks through a participative approach. Then, these plans will be translated into local context (local wildfire prevention plan, methodological guide for elaboration of local plans). In addition, first concrete activities will be developed in the periurban parks of Turia and Sierra Calderona, which both already get a plan. This will allow to assess the efficiency of the collaboration developed during the plan elaboration process.

# Province of Taranto



Website:

<http://www.provincia.taranto.it/>

Contact:

Dott. Antonio MONACO

[antonio.monaco@provincia.ta.it](mailto:antonio.monaco@provincia.ta.it)

## Partner's presentation

The Province of Taranto belongs to the Region of Puglia located in the extreme South-East of Italy (see Map 13). The Region of Puglia covers 19,458 km<sup>2</sup> for a population of 4 millions inhabitants. Protected areas (National and Regional Parks, Biosphere Reserves, Natura 2000 sites,...) represent 13% of the regional area.

The unit "Protected Areas" of the Province of Taranto, temporarily responsible of the "Terra delle Gravine" Natural Park management following the regional law 18/2005, is commissioned of skills like:

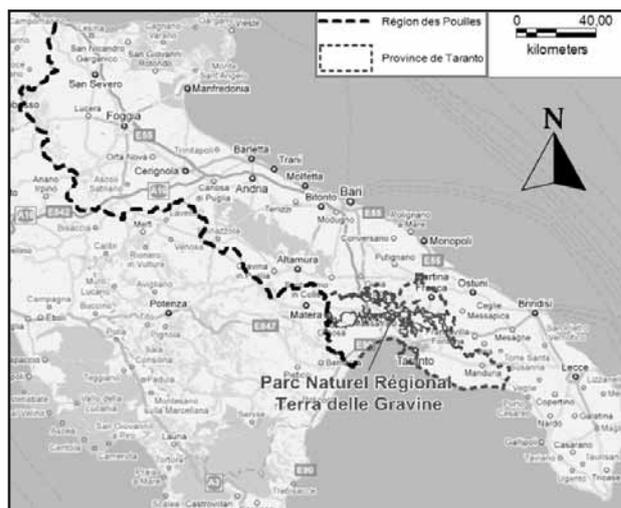
- Setting up and implementing the Management Plan of the Park.
- Promoting the Management Plan of the Park.
- Establishing rules for its good functioning.
- Designing and implementing management plans for the Areas of Special Conservation Interest (ASCI) from Habitat Directive of the European Union.

The Conception and the execution of the required interventions in the protected areas in accordance with the Regional Operative Programme (Programma operativo regionale, POR).

## Regional Natural Park of "Terra delle Gravine"

The Regional Natural Park is located on the South side of the South-Eastern Murges, in front of the Ionian Sea. The territory has been deeply shaped by torrential rivers, creating some sort of canyons called "gravines".

The Park perimeter, extremely indented and heterogeneous (parts of the territory are separated from the rest), makes it more difficult to develop the management and the governance of the area where the divergent interests are significant (see Map 14). The central area is characterized by stricter management rules, in opposition with the buffer protection area.



Map 13: Localization of the pilot territory in the Region of Puglia

The pilot site of the project is mainly located on the municipality of Laterza and extends over 75 km<sup>2</sup> including the Gravine di Laterza.

The particularly interesting natural habitats are the thermo-xerophilous grassland, scrubland, mesophilic wooded scrubland and thermo-xerophilous forests with undergrowth dominated by *Pistacia lentiscus*.

The Province is the provisional manager of this Park, created in 2005. However, this official establishment was decided with a very weak public and local stakeholders consultation. Some municipalities and landowners (farmers...) decided to get out of the perimeter. This explains the discontinuous perimeter that makes management planning more difficult.

Moreover, general management and specific forest management planning of the area still need to be defined tackling priority issues like tourism frequentation control and sustainable natural resources management.

### Identity file of the protected area

- ▶ Date of creation: 2005
- ▶ Superficy: 280 km<sup>2</sup> (80% in central zone); pilot site: 75 km<sup>2</sup> (50 km<sup>2</sup> in central zone)
- ▶ Number of municipalities: 13
- ▶ Main cities: Laterza, Ginosa, Castellaneta, Mottola, Palagianello, Martina Franca, Crispiano, Palagiano, Massafra, Statte, Montemesola, Grottaglie, S. Marzano, Villa Castelli
- ▶ Nearest agglomeration: 60 km from Tarente, 20 km from Matera, 40 km from Massafra
- ▶ Main economic sectors: Agriculture and breeding
- ▶ Other: Natura 2000 "Area delle Gravine", "Murgia di Sud-Est", "Gravine", OASI WWF "Monte S. Elia", OASI Lipu "Gravina di Laterza"

### Présentation des espaces forestiers

- ▶ Couverture forestière régionale : 1,800 km<sup>2</sup>
- ▶ Couverture forestière du site : 47 km<sup>2</sup> (62% correspondant approximativement à la zone centrale)
- ▶ Principales essences forestières du site pilote : *Quercus trojana*, *Q. ilex*, *Q. pubescens*, *Pinus halepensis*
- ▶ Principales valorisations forestières :  
Tourisme et bois de feu (chauffage, charbon pour pizzerias, viandes fumées)
- ▶ Statut de la propriété forestière :  
50% privé ; 50% public

### Gouvernance forestière et de gestion de l'aire protégée

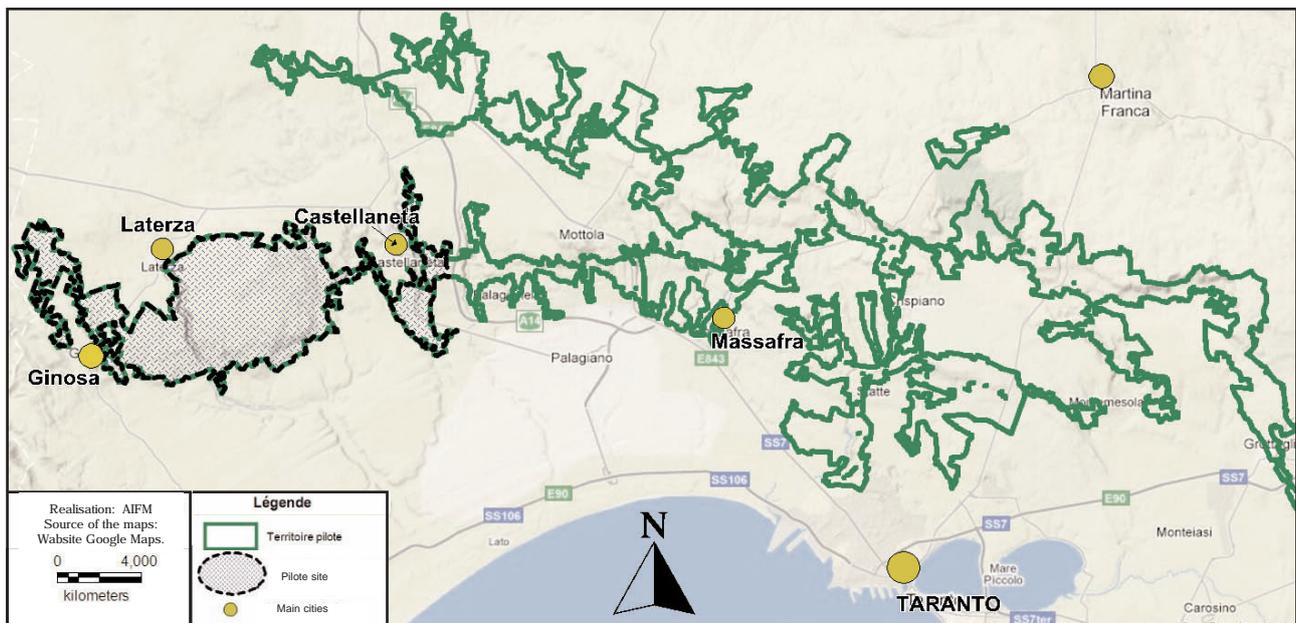
- ▶ Comité scientifique ou technique : Non
- ▶ Commissions thématiques : Non
- ▶ Documents cadres : Non, il n'existe pas encore d'outils de mise en œuvre comme un plan de gestion ou un plan de développement socio-économique
- ▶ SIG : Oui

### Pilot project

On the pilot site of Laterza (75 km<sup>2</sup>, which are partly located in the central zone and partly in the buffer protection area), a detailed territorial diagnosis and surveys, followed by an initiative of dialogue aimed at defining collectively a plan of mid-term management of the site (and, more widely, of the whole Park), are realized.

Besides, communication documents for a wide public (on-line Geographical Information System, video clips...) are being set up by the spin-off For.rest.med.

See Progress book No. 2, p. 23 to 30.



Map 14: General view of the Natural Park of Terra delle Gravine

## WWF Mediterranean Program Office



Web site:

[http://wwf.panda.org/what we do/where we work/mediterranean](http://wwf.panda.org/what_we_do/where_we_work/mediterranean) ;

Contact:

Dott.ssa Marzia VENTIMIGLIA  
[mventimiglia@wwfmedpo.org](mailto:mventimiglia@wwfmedpo.org)

### Partner's presentation

Created in 1961, the World Wildlife Found (WWF) is the first non-governmental organization for general nature and environment protection in the world. It employs 4,000 technicians working on 12,000 protection programmes spread in 90 countries.

The organization shows a real desire to involve all the concerned stakeholders: local communities, companies, governments, international and non-governmental organizations...

The mission of the WWF is to interrupt, and then reverse, the global planetary degradation process. For this, WWF's programmes are structured following priority action themes: climate change, chemical pollution, sustainable ways of life, overseas, threaten species, forests, soft water, oceans and coastlines, agriculture and environmental education.

The objective of WWF Med PO (Mediterranean Programme Branch of WWF), which is the QUALIGOUV project partner, is to preserve natural richness of the Mediterranean, and to promote sustainable and respectful practices for the environment and for everyone's benefit.

## Presentation and localization of the pilot territories

The pilot sites are located in Portugal (two sites included in Natural parks and/or Natura 2000 sites rich in oak woodland, in particular Holm oak and Cork oak) and in Italy (two sites included in reserves "Oasi", property of WWF Italy).

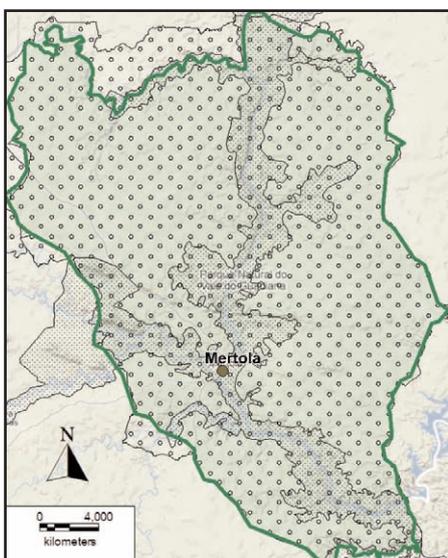
### Forest governance and protected areas management in Portugal

In Portugal, the key stakeholders for natural protected areas management are the forestry associations and administrative structures such as National Forestry Authority (Autodidade Forestal Nacional, AFN) and the Institute for Nature Conservation and Biodiversity (Instituto da Conservação da Natureza e da Biodiversidade, ICBN). Almost 90% of the wooded areas are private, giving to the forest owners associations (when they do exist) an important technical advice and expertise role for the forest management. The AFN is responsible of implementing the legislation related to forest and public areas management. The ICBN is the National Portuguese Authority dedicated to natural protected areas. On the Tejo and Sado watershed, these two structures try to elaborate management plans in collaboration with other local stakeholders (farmers, forests managers, municipalities...).

Since 2008, after involving all the concerned stakeholders, the Vale do Guadiana Natural Park elaborated a Management Plan in a participative way. It complements the strategic Director Plan and allows to specify sectorial management modalities.



Map 15: Localization of the pilot territories in the Region Alentejo



Map 16: General view of Vale do Guadiana



Map 17: General view of the Reserve Oasi Monte Arcosu (Sardinia)

### Common data of the Region of Alentejo pilot sites (see Map 15)

- ▶ Regional forest cover: 31,551 km<sup>2</sup> (53%)
- ▶ Main forest valuations: Cork, hunting, breeding, timber

#### Tejo and Sado Basin

- ▶ Population: 1 285 000 inhabitant
- ▶ Superficy: 11,700 km<sup>2</sup>
- ▶ Number of municipalities: 34
- ▶ Main cities: Santarém and Setubal
- ▶ Forest cover in the Park: > 60%
- ▶ Main forest essence(s): *Quercus suber*, *Pinus pinaster*, *Pinus pinea*, *Eucalyptus globulus*
- ▶ Forest land ownership: 85% private; 15% public

#### Natural Park Vale do Guadiana (see Map 16)

- ▶ Date of creation: 1995
- ▶ Population: 4,000 inhabitants
- ▶ Superficy: 776 km<sup>2</sup>
- ▶ Numbre of municipalities: 4
- ▶ Main cities: Mertola, Serpa, Mina de S. Domingos
- ▶ Nearest agglomeration: 60 km from Beja
- ▶ Forest cover in the Park: > 60%
- ▶ Main forest essence(s): *Quercus rotundifolia*
- ▶ Forest land ownership: 90% private; 10% public

### Region of Tuscany

- ▶ Regional forest cover: 10,860 km<sup>2</sup> (47%)
- ▶ Main forest valuations: Hunting, breeding, decking

#### Reserve WWF of Bosco Rocconi

- ▶ Date of creation: 1995
- ▶ Population: 0 inhabitant
- ▶ Superficy: 1.4 km<sup>2</sup>
- ▶ Number of municipalities: 2
- ▶ Main cities: Roccalbegna and Semproniano
- ▶ Nearest agglomeration: 50 km from Grosseto
- ▶ Forest cover in the Park: > 40%
- ▶ Main forest essence(s): *Quercus ilex*, *Phillyrea latifolia*, *Erica arborea*
- ▶ Forest land ownership: 100% private (property of the WWF)

### Region of Sardinia

- ▶ Regional forest cover: 12,132 km<sup>2</sup> (50,3%)
- ▶ Main forest valuations: Cork, hunting, breeding, timber

#### Reserve WWF of Monte Arcosu

- ▶ Date of creation: 1985
- ▶ Population: 0 inhabitant
- ▶ Superficy: 36 km<sup>2</sup>
- ▶ Number of municipalities: 3
- ▶ Main cities: Uta, Assemini, Siliqua
- ▶ Nearest agglomeration: 20 km from Cagliari
- ▶ Forest cover in the Park: > 80%
- ▶ Main forest essence(s): *Quercus ilex*, *Q. suber*, *Arbutus unedo*, *Rhamnus alaternus*, *Phillyrea latifolia*, *Erica arborea*
- ▶ Forest land ownership: 100% private (property of the WWF)

## Pilot project

In Portugal, WWF is very active thanks to its staff that mainly works on wooded ecosystems. WWF launched the FSC certification in Portugal and contributed to the national interpretation of the “High Conservation Value Forests” (HCVF) concept.

WWF is particularly interested in the quality of forests management implemented in the protected natural areas, in order to improve their financial support by certification, ecosystems services promotion, management, restoration and public reception. To reach this aims, it implements the following actions:

- Development of the HCVF and of a regional Geographic Information System (GIS) aimed at localizing the HCVF attributes in the Portuguese pilot sites.
- Edition of reports about HCVF concept application in the Portuguese pilot sites.
- Implementation of the participative conservation action plan in the Italian pilot sites.
- Elaboration of a web toolbox gathering the main available conservation tools for forest management in the protected areas and practical guidelines.

# Project progress and partial results

## Project of the National Forest Office

(5th seminar, France, 24 - 27 May 2011)

The French National Forest Office (ONF) organised, in conjunction with the AIFM, the fifth technical seminar of the project, which was held from 24 to 27 May, 2011 on the Mont Ventoux, the ONF pilot site. In control of the site and as official manager of public forests, the ONF has been able to try out, on the scale of a massif marked by several protection statutes, various methods and management initiatives and participatory governance that the partners had the opportunity to observe in the first few days of the field trip (see below). The ONF then benefited from the insight of the partners on its activities during the plenary discussions and within the peer group.

## Mont Ventoux Biosphere Reserve

The Mont Ventoux ("the Giant of Provence") is located in the north-west of the Provence-Alpes-Côte d'Azur Region. Its bioclimatic features and the imprint of its history result in various challenges in terms of the use of natural resources and land development in the broad sense.

For centuries, the forests of the Ventoux have been used for coal production, cattle breeding and timber until it was entirely stripped bare at the end of the 18th century. In the mid-19th century, the mountain was called the "thyme and lavender region". The soil was no longer structured by tree roots. Landslides overcome roads and villages. The ONF undertook major mountain land restoration works (RTM Programme), promoted by the Water and Forest Administration. They were to last for more than a half-century.

In spite of a modest altitude (1,909 m), this mountain has presented a substantial vegetation gradient since the formations with typically Mediterranean Holm oak to grasses at altitude with marked alpine



Photo 1: Today, only the summit remained entirely bared, while the other sides of the mountain were entirely reforested.

similarities, from Pine forests to Cedar forests, Oak woodland and even a Beech-Fir forest. There are more than 1,200 plant species distributed over five levels of vegetation, a large number of which are protected, rare and endemic<sup>3</sup>.

The marteloscope, a management and teaching tool

### Definition

The marteloscope is an innovative awareness-raising tool, aimed at introducing various stakeholders to silvicultural management. This device, which has existed for about 10 years, is implemented with an educational goal for colleges, students, forest workers, visitors, etc.

Stand eligibility conditions for installing a marteloscope are as follows:

- An accessible plot and an easy pathway (moderate slope, not too dense understorey...).
- A stand structure which could justify a cut, but

3 - See, on this subject, the No. XXVIII of the magazine *Forêt Méditerranéenne* of December 4th, 2007, "The Mount Ventoux", 150 p.

where no intervention has yet been scheduled in the management plan in force.

- A diverse stand in terms of species and ages with a vertical stratification.
- A visible expression of a species dynamic (here, the natural regeneration of the Beech-Fir forest).
- A potential interest in taking biodiversity into account within a silviculture activities framework.
- Some economic challenges (potential profitability of a cut, price and market issues).
- Other features (stunning landscape, truffle fields, hunting area, fire hazard, etc.).

### The ONF's experience

The site selected, on the northern slope of Mont Ventoux is particularly characterised by an average slope, a mix of species (Black Pine, Mountain Pine, Beech, Silver fir, etc.) and a vigorous regeneration of Fir and Beech trees. It concerns an underused stand (few silvicultural interventions).

On a plot of 0.5 ha, 287 trees over 12.5 cm in diameter (1,30 m from the ground) have been numbered and geo-referenced. The participants, in groups of 2 or 3, are invited to decide whether each one should be cut or conserved, stating the reason for their choice using a map locating each tree and a table of indicators. Each group can have its own strategy according to the goal set for the cut: a regeneration, production or valuation. Therefore, it is necessary to ask the right questions, depending on the goal, for each tree.

Some trees are very important. For example, you may choose to keep this tree because it plays the role of seed producer with a view to promoting regeneration,



Photo 2 : Briefing before the experimentation of the martéloscope by the attendees to the fifth seminar

which implies “cleaning up” by clearing around it, or because it presents an interesting potential in terms of timber growth. You will be able to decide to cut the other for stand health reasons, to encourage light penetration, to prevent a potential dieback (for example the Larch which is threatened by climate change) or simply to cut it because of the quality of its wood.

The mass of wood growing here<sup>4</sup> is approximately 160 m<sup>3</sup>/ha. This is not a very productive zone. As regards the plot as a whole, a conservation cut is being implemented, for example, by encouraging Beeches, among which are the oldest trees in the plot and which guarantee more important biodiversity.

The forests of the Mont Ventoux are essentially derived from reforestations of Pines in this sector. Few thinnings have been carried out, which explains why the diameter of the trees is limited despite their advanced age (a lot of them are older than 100 years). The diversification of tree species is the culmination of the natural dynamics with the return of the Silver fir.

The plot is currently classified as in regeneration. The ONF therefore plans to remove the Mountain Pine to promote Beech and Fir and to move towards mixed-age forest management. But it could also be cut to allow the natural regeneration of the Pine by retaining some of the seed producers. A review of the management plan is scheduled for next year in this sector.

In the even more recent past, any dead tree was removed for reasons of stand “health”. Today, the ONF has been aware of the importance of retaining some dead trees for the natural equilibrium of the stand (habitat for birds and insects, etc.).

The data from the exercise are entered in an Excel spreadsheet developed by an Agro-Paris-Tech engineer and analysed by the modelling software “Capsis” developed by the National Institute for Agronomic Research (INRA). The latter is based on a system of dendrometric extrapolation which demonstrates, depending on the type of forestry chosen during the exercise, the structure of the stand by “year n + 40”, and to discuss the relevance of the strategic choices made by each group<sup>5</sup>.

4 - Trees of diameter upper to 15 cm. Note: it is necessary to take approximately 50 m<sup>3</sup>/ha, in order the cut do not generate money loss.

5 - This model is quite accessible, but it does not take into account certain elements influencing the growth of trees such as the biodiversity, for example. The FIF ENGREF model, developed by the National School of Rural Engineering, Waters and Forests, allows to take into account multiple parameters, but on the other hand, it is extremely complex.

Protecting species and habitats, example of a Natura 2000 site and the Mont Serein ski resort

This site illustrates two important non-forest issues on Mont Ventoux well, namely tourism and environmental protection issues (Natura 2000, LIFE programme).

Mont Serein (alt. 1,500 m) is home to the Meadow viper (*Vipera ursinii*), a protected species at European level, which is fond of open and rocky environments (dry grass, Juniper heathlands, lapies, etc.). The species is currently threatened by environmental closure. Reopening operations were conducted within the framework of Natura 2000 and LIFE Programme. A study is under way to confirm whether the species has been re-established. Breeders have undertaken, in the framework of the "Natura 2000 agricultural contracts", to graze their herds on the site each year in order to maintain the opening.

The ski slopes of the Mont Serein ski resort are located in community forests not subject to the Forestry Code. Some tracks were strewn with rocky terraces. The resort management decided to crush them. A consultation with the naturalists, the Research Conservatory on Provence Ecosystems, the ONF and other stakeholders successful concluded measures to prevent nuisances for the Viper. The resort also refocused its network. The most peripheral track was abandoned 10 years ago: there, regeneration is already clearly visible.

Moreover, part of the site is protected (biotopes protection order: the central zone extends from Mont Serein to the summit of the Ventoux) to protect the Meadow Viper (turning stones over, camping and picking flowers, etc. are prohibited), and equipment has been set up (barriers limiting access to motor vehicles, explanatory signs and awareness-raising boards for tourists). The area is actually much visited, especially in a context where the ski resort is trying to diversify its supply by extending it to out-of-season activities.

Concerning Natura 2000, the site is managed by a Steering Committee, which brings together the various stakeholders (administrations, associations and managers, etc.) and a scientific board which comprises experts in natural and human sciences. These same structures can be found for the Biosphere Reserve, but there are more participants in the latter, because the area is greater.

One of the local problems is the overlapping of the regulatory provisions and the multiplicity of management organisations that stems from it. In fact, the Environment Code stipulates one steering committee

for each site and each type/level of protection (Natura 2000, Biosphere Reserve, biotope order, etc.), with a list of the stakeholders that must be represented there in a constant proportion.

The Syndicate for Mont Ventoux Management and Equipment (Syndicat mixte d'aménagement et d'équipement, SMAEMV), manages the Mont Ventoux Biosphere Reserve and the Natura 2000 site. Meetings are organised according to local issues. For example, that of the Meadow viper has not met for 3 years because it was not necessary, whereas that of Natura 2000 meets each year.

The limits of governance as evident there. The multiplicity of management organisations with the recurring absenteeism of some institutions which have themselves sometimes insisted on being associated with these cooperative processes. Governance requires discipline and a strong commitment from all stakeholders.

Moreover, you might think that the Natura 2000 site Steering Committee has a more informative rather than decision-making role. However, if some debates follow a general consensus, others are hotly debated.

Following the drafting of the Document of Objectives for the Natura 2000 site (reference FR9301580), the Steering Committee shall appoint a moderator, in this case the SMAEMV, who shall then deal with the issues in detail (in application of the directives) while remaining subordinate to the Steering Committee. The budget forecasts are not very detailed, the Union Committee of the SMAEMV, composed of local authorities, has a certain leeway regarding funding. This results in effectiveness gains in terms of field activities.



Photo 3: the summit of the Mount Ventoux, from the tourism resort of the Mont Serein, area concerned by the site Natura 2000.

Interactions between stakeholders involving various users

### Hunting

(Alain Jean, Wildlife Control Officer, President of the Cynergetic Interest Group<sup>6</sup>)

Mont Ventoux is characterised by a large population of four large mammals (Mountain Sheep, Chamois, Roe Deer and Deer), which is increasing and have been subjected to hunting plans<sup>6</sup>. The latter fix, depending on the outcome of the counts, the number of animals to be destroyed each year in order to keep the population under control. It therefore eliminates part of the increase in the populations. Occasional problems of overcrowding may cause damage to the forest and crops, when the berries run out. Wild boar in particular is so abundant that it is not subject to the hunting plan and can be shot down freely.

The Chamois is naturally present on Mont Ventoux. Its return has been encouraged by the decreasing land use in the Alps and the south of the region. On the other hand, some species such as Mountain Sheep are not indigenous. However, they have been protected for 20 years by the careful management via a restrictive hunting plan still in force today.

The relations between the general public and the hunters are going rather well despite tourist visits which involve an increased risk. On the other hand, the Cynegetic Interest Group<sup>7</sup> (hunters organisation) is often confronted by environmental groups. Exchanges are not always polite, but it is important to have an opportunity for debate. Environmentalists are invited to check the validity of the counts and the data on which the development of the hunting plans are based, if they feel it is necessary.

Nearly a quarter of the Public forests of the Ventoux are classified as a "Hunting Reserve". The ONF therefore has to authorise and accompany any hunters. The rest is leased to the Cynegetic Interest Group in the form of concessions.

It should be known that hunting represents 60% of the total revenue from the Biosphere Reserve area. Maintaining hunting is a locally expressed request. We are witnessing the development of "hunting tourism" of the massif.

The Cynegetic Interest Group is totally opposed to

the creation of a Regional Natural Park on Mont Ventoux, especially because of the additional influx of visitors that it would cause, despite all the advantages that it would bring.

### Forest research

(Philippe Dreyfus, researcher in Mediterranean forest ecology, National Institute for Agronomic Research)

The Ventoux is a veritable laboratory for studying functioning mechanisms of forest stands, particularly for functional factors, soils, etc. The following are also studied there:

- Forest wildfires (dynamics, propagation, etc.).
- Biology of the vegetal populations (genetics, adaptation, etc.).
- Functional ecology (physiology, forest stand dynamics, etc.).

There is also a perfect graduation in space (altitudinal gradient) and in time (evolution of stands), which is an important concern in the current context of climate change.

The Scots Pine has been introduced to Mediterranean regions as a reforestation species. Now the return of mixed stands can be seen. This makes management more complex, but presents an interesting qualitative aspect in terms of biodiversity resulting from competition between species.

The effects of the development of herbivores (Deer, Chamois, etc.) on the forest population are taken into account, in the same way as those of insects are, but without being specified in the studies. Specific monitoring existed but was halted in 2007. On the other hand, it was recently noticed that insects particularly attack the Cedar seeds.

On the matter of governance, the National Institute for Agronomic Research (INRA) conducted "multiple agents" studies, taking simplified stands into account. For example, a project called FORGECO developed a modelling approach of the natural dynamics structured around a human sciences approach which could perfectly apply to Mont Ventoux.

The INRA also developed the simulation software called Capsis, used for the Marteloscope debriefing document. It is an interesting model, but it could be improved, especially as managers' requests are not always easy to determine.

6 - The hunting plan fixes the the number of animals that can be killed for each species, as well as a tax for animal killing (80 Euro minimum for a Roe deer, 150 for a Mouflon, for example...). [Http://archasse84.over-blog.com/pages/reglement\\_ONF\\_Toulourenc-429672.html](http://archasse84.over-blog.com/pages/reglement_ONF_Toulourenc-429672.html).

7 - The role of the Cynegetic Interest Group is above all to avoid the conflicts. It meets 10 times a year. The federation of hunters, the farmers, the ONF and other stakeholders are represented there.

Establishing pockets of senescence, case of a mature Beech forest

### Origin and justification of the project

In 2009 the ONF received a memo from its management calling for the establishment of specific measures to conserve biodiversity. It particularly concerns the establishment of 3 to 5% (according to the local characteristics) of the forest area populated with "old wood" at least 1% of which comprises pockets of senescence. This note also requires at least one dead tree and two ancient or large trees to be preserved per hectare.

In the framework of the QUALIGOUV project, the ONF Mont Ventoux is experimenting with the establishment of small aging pockets. During the seminar, a 9 ha plot located in the Natura 2000 area, named "Le Fayet puant", in the heart of the Public Forests of Ventouret, was visited. It concerns an old Beech forest (a tree rings count on trees from a neighbouring plot with a similar diameter indicated an age of 110 years old).

The trees are left to spontaneously evolve until they collapse from a natural death. Some species are actually dependent on this stage of great silvicultural maturity and its manifestations such as "dendrotermes" (hollows filled with water). It is estimated that old trees are indispensable to the survival of 30% of forest species, many of which have a heritage interest. This is the case with many wood-rotting fungi, and also vines, ivy, mosses (*Androsace chaixii*, *Buxbaumia viridis*...) and lichens (*Lobaria pulmonaria*...). The hollows also provide refuge and food for some birds (Woodpecker, Northern goshawk, tits, Eagle owl, Wryneck, etc.), remarkable insects (Stag-beetle, Great Capricorn Beetle and the Long-horned Beetle) or bats (Lesser Noctule and Small Rhinolophe, etc.).

### Method

The development of the method for establishing the pockets of senescence was carried out in consultation with several partners (naturalists, the SMAEMV Man & Biosphere Reserves Forest Group, associations, etc.).

The main criterion used to identify the potential pockets of senescence is the diameter of the trees, but also:

- The maturity of the stands with the presence of large and/or old trees.
- The representativeness of the Ventoux stands.
- The dominant tree species: preference given to leafy<sup>8</sup>, local and mixed species.

8 - It is not easy to determine if conifer are more or less favorable to the diversity of insects. However, we clearly know that the Black Pine and the Mountain Pine are less prone to it.

- The stand should be separated of at least 25 m from access and marked trails.

Once these criteria were established, extensive identification work was carried out to identify the sectors that best match up.

To promote the continuity of the environment and limit the fragmentation of habitats, the pockets are positioned so that the exploited areas do not entirely isolate the areas left to evolve naturally and allow animals to move easily from one to the other. The pockets thus act as biological corridors.

### Regulatory aspects and compensation measures

No logging will be carried out for at least the next 30 years in these areas (review date for the Natura 2000 contract) and probably longer than that.

Several levels of protection exist for public forests:

- As regards the massif, the complete Biological Reserve covers 900 ha on the northern-facing slope.
- As regards each forest, there are aging pockets, aimed at conserving trees beyond their usual harvesting age, and pockets of senescence preserved until the trees collapse.
- As regards the plot, we are opportunely conserving trees that are "biodiversity reservoirs" scattered at a rate of one dead tree and 2 large trees per hectare.

There are profit loss compensation schemes for owners in Natura 2000 area. Outside of these areas, the owners can also freely decide to establish a pocket of senescence on their land and entrust its management to the ONF.



Photo 4: the presence of big trees and dead wood constitute the main characteristics of a pocket of senescence.

### Monitoring-evaluation and outlooks

An inventory sheet (see Annex 2 of the Complete Report of the Seminar) regarding the plot, has been developed by the WWF, and which has been adapted to the context of Mont Ventoux to determine the location of the pockets of senescence. It particularly enables the level of “naturalness” of a stand to be assessed (biodiversity, human interventions, etc.) and to identify habitats. It also constitutes a comparable initial state according to local conditions which will help to establish long-term monitoring.

The necessary operational resources for this monitoring work remain to be found. Besides which, the measuring protocol for dead wood is a very tricky process to implement on a massif with 500 ha of pockets of senescence. For now, the ONF is satisfied with establishing pockets.

The deadline for reviewing the forest management plans is not the ideal time to monitor these pockets. However, the plan models for France advocate an interval of 8 to 10 years between each review, whereas, in a Mediterranean environment, an interval of 15 years would be enough.

The following tasks remain to be accomplished:

- Selecting the pockets retained by the inventory and including them in the forest management plans.
- Creating these pockets in the field and determining the type of marking, refining the mapping.
- Further consultation.
- In the Natura 2000 zone, identifying the pockets that may be subject to funding and complete the contracts.
- Assess the future network of old wood, in relation to the other systems in favour of old wood.

Local exploitation of Cedar wood, the case of a pilot experience in the Public Forest of Bédoin

The Bédoin Cedar forest is one of the largest in Europe. This species, now emblematic of Mont Ventoux, was introduced at the time of the RTM major reforestations at the end of the 19th century.

The Cedar forest is now managed as regular woodland “by packets” of 2 to 3 ha maximum (patchwork of stands of different ages) and according to a management plan. The Atlas cedar (*Cedrus atlantica*) is currently the best valued species on the Ventoux (40 euros/m<sup>3</sup> before harvest).

One of the QUALIGOUV objectives was to organise an exploitation work “*en régie*”<sup>9</sup> with a cash advance from municipalities in exchange for the delivery of wood stripped of its branches and sorted into quality categories (carpentry and cladding). The goal is to build a multipurpose room in Mazan (project management: municipality of Bédoin) made of local Cedar wood.

### An unfavourable context a priori

The Mediterranean forest is known for its low wood productivity and for its exploitation difficulties. Wood production contributes little to the local economic activity and civil society is not very concerned about it.

Today, the forest is progressing and taking over areas formerly trampled by cattle, thus changing the environment and causing the disappearance of open habitats favourable to certain species (such as orchids, Bonelli’s Eagle, Meadow Viper, etc.). The public authorities are therefore forced to finance environment opening operations the costs of which can, in part, be absorbed by increasing making good use of exploited wood products.

Carpenters, joiners and builders want to use the local lumber, but there is not a steady, sufficient supply of sawn wood to offer to end users.

### Development proposals

The qualities of Mediterranean tree species such as the Aleppo pine, the Downy Oak, the Cedar, the Black pine or the Mountain Pine are neglected and not put to good use and they have to face competition from major northern European productions.

One of the commercial outlets is wood fibre, which is now recognised as insulation for buildings. The operating costs are, of course, a handicap, but the added value generated and the local markets can mitigate these difficulties. The establishment of labels such as “Alpine Wood” or trademarks such as “South of France” are also a good way increasing value.

The best solution is, however, to restore the place that local wood has lost in construction as well as wood for structures or substructures (in direct competition with “Northern wood”) both for interior design (walls, wooden floors made from standing timber and trimmings, etc.) or externally (cladding, slatted floors, etc.). The uses above increase the value of smaller sections

9 - Contrary to the standing sale (actual main way of valuation of the public forests), the controlled valuation (“*en régie*”) consists of the fact that the ONF takes care of the marketing of the wood up to the final user, appealing, when it is necessary, to several providers for the execution of the works (cutting, skidding, sorting, transporting...).

and wood with proven aesthetic qualities which are two features common to Mediterranean woods.

### The ONF project on the Ventoux

An interest in sorting timber for better exploitation has been identified since the beginning of the QUALIGOUV project. An initial public appeal, aimed at local professionals or from neighbouring regions, quickly confirmed the absence of an organised network. It was necessary to explore and get the chance to contact the municipality of Mazan, adjacent to the Mont Ventoux, interested in building a multi-purpose room with local wood as part of an environmentally-friendly approach.

A call for proposals has been prepared for design consultants and architects interested in wooden construction and with proven experience in this field. The design consultants, Gaujard Technologies in Avignon, already known for local wood projects in the region, were taken on.

A meeting was organised with the Mayor of Mazan, the developer, the Urban Community of the Ventoux-Comptat Venaissin (CoVe) and the design consultants, in order to visit the logging sites and see how wood could be best used in construction. It is a totally innovative and "reversed" approach: the design consultants adapt the construction processes to the products that can be taken from the local forest instead of looking for products that correspond to a predefined construction process on the market.

The timber is sorted for carpentry, cladding or palette production, depending on the species and its quality. The project should enable a total of more than 1,000 m<sup>3</sup> of local species to be put to good use.



Photo 5: Forestry works "en régie" (see note No. 9) in the Cedar forest of Bedoin for the "Mazan project".

### Experience of alternative skidding by traditional techniques (animal traction)<sup>10</sup>

The objective here was to achieve natural regeneration cuts. Two pilot sites have been set up by QUALIGOUV and completed "en régie" (run by the ONF) with wood sorting. One took place in the Public forest (Black Pine), and the other in the Communal forest of Bédoin (Cedar). On this occasion, QUALIGOUV permitted the use of animal traction for the skidding of the timber. An almost forgotten technique and certainly not very economically viable in the current state of affairs, but which presents some advantages in a forest facing many challenges that is the Ventoux (preserve the site, limit noise pollution). A financial balance sheet for the operation will be prepared shortly and passed on to the partners.

### The conditions for the success of a project carried out collectively

This innovative project has mobilised a whole chain of stakeholders: local foresters, local authorities, technical services from the municipality and from CoVe, architects, design consultants, carpenters, sawyers, operators, loggers, local skidders, etc. The tenacity of them all deserves to be noted, because there were many obstacles.

This operation shows that, with commitment, a significant proportion of Mediterranean wood can find a place in construction. This gains the confidence of the inhabitants, who are more in favour of using local timber for a noble use, especially for building community facilities, than for energy-wood and paper pulp or for preventing wildfires.

The operation "Cedar Park of Le Rousset" initiated by the Regional Natural Park of the Luberon (a QUALIGOUV partner) and managed by the ONF, is also included in this approach, by promoting Cedar and Cypress trees. Since the first year of operation (2010), local stakeholders who were unaware of our services have shifted to acquiring Cedar wood for a variety of uses, at a good price for the owner.

In several other partner projects visited during previous seminars (Serra España, Terra delle Gravine, Puebla de San Miguel, Les Alpilles, etc.), Aleppo Pine harvesting are planned or could be possible in comparable circumstances. There are plenty of opportunities. The context of the development of local markets and local development lends itself well to this approach and responds to the aspirations of sustainably managing our forests.

<sup>10</sup> - For more specific information about this technique, see the website of the Popular University of Ventoux: <http://www.upr-jdv.org/>, section "Conservatoire Dynamique des Gestes Techniques".

## Study on the availability of timber and wood-energy on the Mont Ventoux massif

The analysis of the timber resource mainly consisted of a study of forest management documents (data from the National Forestry Inventory) and an assessment of past exploitations.

A summary was then provided, for each forest, on the availability of wood-energy (see Complete Report of the seminar, [www.qualigouv.eu](http://www.qualigouv.eu)). This activity has not yet led to concrete action in the field.

## Debriefing of the field trip to Mont Ventoux

### Marteloscope (Stop 1)

Camille Loudun notes that dead trees are not numbered. Philippe Bourdenet responds that the dead trees must remain in place because they contribute to the natural dynamics. However, they can become a shelter for some bark beetles which can, depending on the circumstances, become problematic. Daniel Seven also reports that cutting down a dead tree represents a risk to the logger.

Concerning media coverage of the marteloscope, the ONF is committed to publishing some deliverables in the context of the project. Priority contacts are being established for events on the environment and the forest. Furthermore, the Syndicat for development of Mont Ventoux organises several educational events on the massif to which the equipment could contribute. Moreover, Jean Bonnier pointed out that the magazine *Forêt Méditerranéenne* will happily disseminate information about this.

However, the marteloscope remains a relatively complex tool for an uninformed public. Daniel Seven suggests breaking it down into several types (one variant for foresters, one for schools, etc.) and grouping them together afterwards. Jean de Montgolfier believes that it should work with actual qualified instructors and make the system available for training for a Brevet technicien supérieur (Higher Education Diploma) in natural sciences or environment, or in sixth-form colleges, further education colleges, etc.

Within the Mont Ventoux regional unit, one instructor spends 40 days a year organising environmental educational days in schools. The plan is to ask her to run a few marteloscope sessions every year.

To extract and analyse the results, the ONF satisfies himself with a dynamic specialist Excel table, copyright free, created by Agro-Paris-Tech. It does not take into account all the natural parameters of the site, but is user-friendly. The idea is, of course, to have a reproducible experimental tool.

In the case of the marteloscope of the Ventoux, the model proposed by the INRA is based on several scenarios related to different strategies (support for natural regeneration, action to benefit the Larch and the Mountain Pine, etc.). These are relatively easy scenarios to outline to a group of foresters, but less so for the general public, as they are somewhat “simplistic” scientifically (they do not take into account biodiversity, specific habitats, etc.).

It would be interesting to integrate other dimensions in the tree selection criteria. Patrizia Tartarino adds that the possibility of making intermediate cuts should also be revealed, and not necessarily cuts for the final use of timber. Gilles Martinez believes that a sense of practical realities needs to be retained. We will never have a tool that is capable of solving all the problems. As regards “scripting”, it is an ambitious project to pursue if we really want to include all the parameters.

The Region of Murcia is looking for a place to establish a marteloscope in the Sierra Espuña. It actually considers this as an excellent support for awareness-raising and stimulating debate among the local stakeholders in the region of Murcia, even for those who are not specifically dedicated to the forest. The question of costs and techniques, sometimes questionable, remains.

Financially the ONF has not yet prepared an assessment of the operation, but is committed to disseminating the details as soon as they are available.

### Mont Serein resort (Stop 2)

The issue raised in this stop is a good example of how difficult it is to implement governance in the accepted sense of the word, especially on a subject which seems precise and concrete such as protecting the Meadow Viper. The overlapping of statutory documents and management structures each with their Committee meeting periodically complicates decision-making and the implementation of consistent and effective measures. It should be noted however, that the provision of the stakeholders is facilitated by consultation, even if it involves a complex and heavy-going process.

### Interactions between stakeholders (Stop 3)

It is noted that, above all, the main concern for hunters is the increasing number of the general public visiting the massif. It is one of the reasons why they are opposed to the creation of a Regional Natural Park which, in their opinion, would inevitably attract more people to the site.

However, it is interesting to note that, although we provide them with an opportunity to speak, the stakeholders rarely respond to invitations. However, discussions well and truly exist, and common ground is sometimes found, but we prefer to do it away from the watchful eyes of an audience who is not directly concerned.

This is the whole complexity of consultation projects in rural areas. We are faced with both the stakeholders who are used to working together and new arrivals, originating from urban areas who have a different perception of the region. It is usually the latter who bring the craze for motor sports and the great outdoors. There are federations which are striving to integrate with the local dynamics, but individuals have the impression that they arrive at a blank space where everything is allowed, without worrying about local practices and the precarious balance in these areas.

Samuel Jaulmes makes the connection with the Alpilles. "We are faced with typical reactions upstream of the approaches to create a park". The Future Charter will have an impact on forest management for 12 years. It is interesting to have this outlook on the Ventoux in the perspective of situating forest management in an all-encompassing regional dynamic.

Finally, the fact that hunting brings in more money (60% of the income) than the sale of timber in the biosphere reserve is a disturbing factor. However, other modes of exploitation are possible (a grant for producing truffles, growing aromatic plants, etc.).

### Establishing pockets of senescence (Stop 4)

The Mont Ventoux Biological Reserve covers 900 ha on a northern-facing slope, beneath the summit. We also note that most of the pockets of senescence are mainly centred along the thalweg lines, which is justified by a high humidity permitting good growth of trees).

There are two on-going studies: one on the availability of wood, the other on the installation of the pockets of senescence. Perhaps the two are not totally independent. For example, problems of dieback around the pockets could have an impact on the production

and the quality of the wood".

Moreover, according to Jean de Montgolfier, the awarding of profit losses compensation for the owners of pockets areas is questionable. Does the environment not belong to the community who must only hold on to their sovereignty? In urbanism, for example, public servitude is free, why would it not be the same in a natural environment? Luc Dassonville mitigates this by pointing out that the compensation system is "the least bad solution" found to further involve the owners in the development of forest amenities.

The question also arises as to whether we can talk about a "vocation" of the forests or even the "amenities" and the "role" of forests. In the second case, people choose themselves how the forest is used.

### Mazan project and forestry works in the Public forest of Bédoin (Stop 5)

The links with the project's objectives are not always very clear. Indeed, it is all the more difficult to understand what the added value of the project is in terms of exploitation "en régie" (work on a contract basis, from cut to final use of timber) which has always been practiced by the ONF.

Philippe Bourdenet recalls that the pilot region is both the subject of a Regional Natural Park project and a Man & Biosphere Reserve. This offers the possibility of exploitation "en régie" by means of major restrictions regarding certification. Furthermore, markets have to be found. Very few companies in the region are aware of the use of local timber. All of this represents a lot of energy devoted to these work sites that could probably not have been completed without the support of the QUALIGOUV project.

Here the link between governance and exploitation appears: it needs to be demonstrated that it is possible to provide quality lumber and at a good price so that the municipalities adhere to the forest governance projects.

As regards skidding by animal traction, it is gratifying to see that the project has helped to restore this technique, which was virtually forgotten in the region. A cost assessment will be done. There is no doubt that it is much more expensive than a traditional motorised work, but it is important to consider all of the non-quantifiable interests that this technique presents for preserving the natural forest environment, fossil fuel savings or even for preserving the cultural heritage.

## Project of the WWF

(6th seminar, Sardinia, 25 - 27 October 2011)

The WWF organised the 6th technical seminar in Sardinia from 25 to 27 October 2011. The partners discovered some of the activities of the WWF within the framework of the project, including the establishment of an experimental multi-functional management plan of a protected area that is part of the network of the Oasi, a private property owned by the WWF.

### Natural Reserve of Monte Arcosu

The site of Monte Arcosu, located in the Sulcis massif (southern Sardinia), is a complete Fauna and botany natural reserve stretching over 3,600 ha. The site was purchased in 1985: 3,000 ha initially and then 600 ha in 1995. The main goal was to create a refuge area to rebuild Sardinian Deer populations (*Cervus elaphus corsicanus*, an endemic sub-species, also called the Red deer of Corsica), in decline in the previous decades due to intensive poaching<sup>11</sup>.

One of the protection measures has been to ban hunting and timber cutting in the area, and to give a free rein to the natural evolution of the vegetation cover. The forest is progressively returning to its natural state, despite still visible signs of serious degradation or erosion. Adapted developments have helped to



Photo 6: in the foreground, the "tree of the shame" (heap of snares collected on the site or seized from poachers) .

11 - In the years 1980s, until 1,200 snares and other poaching traps were collected each year by the guards of the Park.

accelerate the recovery of the environment (see Photo 6). As regards the main goal, it has been fully achieved. The deer population rose from 85 to 1,250 individuals between 1985 and 2010. Today, the establishment of "integrated" site management (wildfire prevention, sustainable tourism, etc.) is desirable to sustainably maintain the environment.

### Introduction to the site and origin of the project

#### Site features and issues

Giovanni Paulis, a photographer and naturalist who knows the site well, explained that Monte Arcosu is one of the most important forest areas in the Mediterranean region. It is a genuine "green blot" over 35,000 ha on the satellite photo, without any villages and with just one road. A steep altitudinal gradient (68 to 1,130 m) ensures significant biodiversity on the site. Here, a dense enough maquis on granitic substrate can be found, providing abundant food for the Sardinian Deer populations. Indeed, in addition to the pasture, acorns, carobs and other, they can feed directly on the shrubs. The dominant species are the Juniper and the Holm oak. Towards an altitude of 1,000 m, there is a *Taxus baccata* forest, constituting the extreme southern limit of the distribution of this species. The wadis, mostly dry at the end of summer, leave small water ponds which are also centres of biological diversity, and in particular for the predators such as the Wild Cat, who just has to wait there for its prey.

There are a few areas of "primary" forests on the site, including forests-relics of *Quercus ilex* or *Taxus baccata* (800 to 1,000 years old in some cases). But most of the trees have been exploited to make railway sleepers (carob trees) or even to support mine tunnels (Juniper, which has the particular feature of making a noise before breaking<sup>12</sup>). In the past century the south-west of Sardinia has actually experienced a golden age for mining (Iglesias, Carbonia, etc.). The sector was also intensely grazed by herds of goats, whose impact on regeneration has been devastating. On the other hand, the big trees were preserved by the shepherds for their shade.

12 - A former iron mine, belonging to the FIAT Company, is situated near to the site. On the other side (west), the mining activity was even more intense (lead, zinc, silver...). Anecdote: a company decided to stop using Juniper wood to support the galleries of its mines, because it had become quite rare. An important strike of the workers was declared in order to use it again.

## Origin of the project and WWF activities on the site

The purchase of this site represented a significant financial risk for the WWF, which did not, at the time, have the necessary resources. The decision to buy it was difficult to make, but the NGO felt that it was an emergency. A gigantic popular impetus allowed to collect about 350,000 euros. The local schools have been involved in the project, by collecting funds (100,000 euros were collected by this way).

In addition to placing it under protection, one of the first achievements on the site was the creation of a network of trails, without tracking it again, but by restoring and interconnecting the various routes once used by the mule riders to transport minerals from one shore to the other. This was especially done for educational purposes and to raise awareness, particularly for schools (environmental education). Approximately 3,000 children visit the site every year, out of a total of 9,000 visitors. Guided tours are organised, and supervision work is performed to prevent wildfires from starting or any other types of accident. Camping is strictly forbidden. This increasing and sought-after influx causes a number of new problems: parking, sanitation and adapted trails, etc.

In the areas visited, rare “clearing” cuts have been carried out as interventions on the forest environment. This has also helped to promote the return of birds of prey such as the Golden Eagle, Peregrine Falcon or even the Scops Owl.

Terraces have been put in place to tackle erosion problems. Forest cover seems to be returning to degraded areas.

As for the Sardinian Deer, the operation was a success, with more than 6,000 individuals now on the island. This allowed the species to be reintroduced in Corsica where it had completely disappeared.

The WWF charges an entrance fee of 5 euros to all visitors as a contribution to the site’s operating costs. A Natural Park project has been launched by the WWF, which intends to expand its range of services. The objective is not to create a closed park, but rather a tool for raising awareness fully open to the world.

By working with volunteers, particularly to control poaching and wildfire hazards, the project’s pedagogical effectiveness was further improved.

The WWF cannot object to hunting, which is legal in Italy, including on private property. However, the Deer, as a protected species, is excluded. In addition, the Natura 2000 site, including the whole of the Oasi,

constitutes a refuge area for many species (Wild Boar, etc.). This benefits the bordering hunting areas.

## Governance and local consultation

The WWF strives to ensure a concerted management of the site, by developing, for example, contacts with the local communities, as well as a multi-functional approach. To do this, geologists, botanists and other specialists have been consulted.

Site management has been initially entrusted to a “cooperative” working under contract. It includes individuals from local communities, public services (roads), etc. However, it has been established that it was no longer sufficient to guarantee the sustainability of the site’s management. A company attached to the WWF has therefore been set up, with much broader conservation goals, besides developing tourism. The WWF however, still keeps its hand in for the broad guidelines.

For a long time, public institutions, including some municipalities, were reluctant to work with organisations from civil society (risk of potentially illegal or marginal activities). But now trust has been established and relations with the Corpo forestale are excellent. A partnership has been set up with the Province of Cagliari. It lends its support, not only financially (grant of 50,000 euros), but also by doing this sometimes things move forward in terms of regulations (permits to intervene on the site, etc.).



Photo 7: Field trip with the partners of QUALIGOUV on the WWF pilot site of Monte Arcosu.

## The Oasi, a key concept of the WWF's action

The WWF's protected areas system now constitutes a network of independently managed private sites called Oasi, present in all Italian regions since 1966. Lake Burano was the first WWF Italy property. Now all of the 103 Oasi in Italy welcome 400,000 visitors a year.

The basic principles are the conservation of ecosystems and natural areas as well as raising public awareness and environmental education. Workshops and other activities/services are also organised.

A new category of protected areas appeared in 2007: private land (former agricultural areas or others) entrusted to the management of a competent organisation in the field. For example, an agreement signed in 2007 with an insurance company in the Province of Grosseto aimed at entrusting the management of a Pine forest to the WWF. The request is specific to each case, giving rise to an agreement adapted to the context.

Individuals also sometimes make donations to protect a specific site. In 2011, a day on the Oasi was an opportunity for a campaign to appeal for donations which enabled a small forest being purchased near Rome. Protection constraints are primarily those of sites of Community interest, sometimes also recognised as a provincial or regional reserve or even RAMSAR wetlands.

In 2007, a private company intended to manage the protected areas was created: WWF Oasi. Its goal is to standardise management methods and to develop scientific research.

The management plan should include a study phase in the field. The WWF is also tied to various stakeholders by management constraints. This aims to take the context of the project and local stakeholders' expectations into account. The long-term goal is to propose a model for other protected areas.

In addition, a range of local certified organic products was launched two years ago (pasta, cereals, etc.). This contributes to the management objectives (environmentally-friendly farming, promotion of local products, and financial return for the WWF).

A network of educational trails (accessible to people with disabilities) has been put in place to invite visitors find out more and to raise awareness. A fauna education area and several notice boards have been created along the Monte Arcosu trails.

Contacts are being established with all the stake-

holders (local authorities, local businesses, etc.) to define new guidelines for the management plans. A standard method has been developed to facilitate planning activities. There are however still things to be developed in terms of monitoring. The management plans are updated approximately every 3 to 5 years.

To date, a management plan has been produced by the Province of Cagliari for the Natura 2000 site of Monte Lattias (600 ha). The WWF ensures it is implemented. But its scale is now considered to be too small to permit consistent management and should be expanded to the whole massif. The fact of being the owner of the protected areas helps enormously with applying management measures.

The Oasi Monte Arcosu has its own technical committee composed of public administrations and the WWF Italy. It does not really have institutional status, but has more of an advisory technical support role. The WWF proposes a management plan to the authorities who discuss it a posteriori, and make any amendments.

## A project management dynamic

"Nobody plans to fail but many people fail to plan".

In Italy, there was no framework law for managing protected areas. The goal for these areas bought up by the WWF is to perform the role of an experimental model. The WWF has no intention of managing these areas indefinitely and works according to a project management logic. The method used is called "Open standards". It aims to define goals (for example, reduce the damage related to poaching), indicators (number of traps identified, Deer population, etc.) and priority actions (awareness raising, volunteers patrols, etc.).

One of the weak points of the management in Italy is the absence of experiences sharing (positive and negative).

In addition, the targets of the action which are partly determined by major institutions (European Union, for example) are sometimes barely relevant at local level in certain contexts. Hence the importance of the approach by stakes, which is to identify, on such and such aspect, whether there is something to gain and/or lose.

## Monte Arcosu, a model experience?

The "open standards" make a toolbox available for the organisational method, the implementation of the guidelines and the integration of the institutions in the

consultation. To assess the proper application of the methodology and the evaluation of its effectiveness, you follow a reverse path (you start with the strategies and move towards the goals).

The central goal of the Oasi is to develop a network of model experiences for other initiatives to protect nature. A Management Plan project for Monte Arcosu was prepared in 2010 (see excerpt in Annex 1 of the Complete report of the 6th seminar).

Some believe that this method is a very good tool to help with decision-making. However, we must also evaluate the feasibility and impact of different strategies chosen. Indeed, factors such as erosion, stormwater management, or even the excessive increase in the deer population may have not been sufficiently taken into account.

Vegetation mapping, particularly at the level of the sites of Community importance, has been carried out. But there is still not an actual forestry management plan.

On the matter of evaluation, Miradi<sup>13</sup> is a computer tool used for monitoring the development and the implementation of the actions, and for evaluating the project.

Erosion has not been identified as a priority, but it is of course taken into account. Monitoring over time has been put in place, as well as measures to demonstrate improvement.

As regards the deer population, it is estimated that the maximum load capacity has not yet been reached. We must not forget that the Sardinian Deer is smaller and needs a smaller area. In spite of this, a doubling of



Photo 8: *Cervus elaphus corsicanus*, the Sardinian Deer (Photo: Giovanni Paulis).



Photo 9: The anti-erosion equipment begin to bring some positive effects.

the population is forecast by the year 2020. So it is not unlikely that the number of deer may become an issue. The species will therefore gradually move from protected status to that of threat in the management plan.

Be that as it may, the management must take a multifunctional dimension. Funding should not be intended solely to preserve the Deer for “X” years, but rather to maintain the ecological balance of the area as a whole.

It must be borne in mind that the presence of the Deer also represents an opportunity for revenue from legal hunting in the future.

Since it bought the site, the WWF has not conducted any forestry activities. The development of the vegetation cover, since the last cut in the area, has not been regulated or controlled. Lack of management can also become a problem. That is why a multifunctional management of the site should be put in place.

The “Open standards ” method applied to Monte Arcosu

This method has been developed to justify implementation of natural environment conservation projects. There are 5 main steps:

1. Definition of the objectives.
2. Project design.
3. Implementation of the actions.
4. Analysis and possible adaptation.
5. Sharing and exchanging experiences.

It is an extremely useful directory for a project initiator, enabling him to avoid racing ahead, but also to better understand why certain failures occurred.

According to David Gasc (AIFM), the “Open standards” tool is extremely interesting, and may overlap with others already presented in the context of QUALIGOUV (Master Plan, Regional Forest Charter, Tool box, etc.). However, there are relatively few representatives from the cooperative or other local stakeholders involved among the members of the site’s routine management “team”. Consultation seems, after all, very limited.

Corrado Teofili (WWF) notes that the field of application of the Management Plan only refers to 3,600 ha of the reserve. Only local stakeholders directly concerned have therefore been consulted. Other stakeholders are in themselves not interested, probably because the site is the private property of the WWF.

13 - Free access software, downloadable on the website: <https://miradi.org/>.

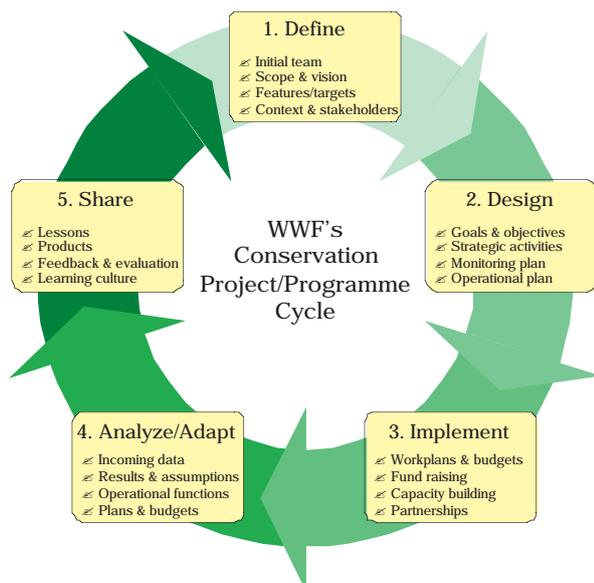


Figure 1: The “Open Standard” method applied to the management of Oasi by the WWF.

“Actually, the WWF will only control the variables that will permit the correct implementation of the project, but without influencing the general guidelines and objectives which are discussed in consultation”.

Jean de Montgolfier (President of the peer group) believes that the “Open standards” method is excellent, although it is not completely reflected in the WWF’s tool. The provisional Management Plan (see Complete Report), seems a very good internal working document to define the objectives and priority actions. In contrast, in the field of communication, it will be ineffective, because it is too detailed and complicated, it might cause a lot of criticism (we can always consider such and such a factor or link is missing).

#### “WWF-Monte Arcosu” consortium

A “WWF Monte Arcosu” consortium, including organisations and companies with various skills (protection of habitats, landscapes, rural tourism, etc.) has recently been put in place.

The consortium includes businesses and cooperatives which have been created with economic goals, but also with sensitivity in respect of environmental protection. Some companies are involved in installations, reforestation, and other conservation activities.

The long-term goal is to combine the efforts for sustainable local development, and to have a better understanding of managing the territory.

It should be known that Monte Arcosu currently

constitutes the highest level of protection in Sardinia. The challenge is to show that it can also develop this area by creating activities and jobs for the benefit of local communities.



Photo 10: Typical landscape of Monte Arcosu.

#### Debriefing of the field trip to the Natural Reserve of Monte Arcosu

The Oasi “Monte Arcosu” extends over 3,600 ha. This is huge for a natural reserve with just one tenant, which is also privately owned.

The main financial resource for the Oasi at the moment is the entry fee. The latter is fairly well accepted by visitors, and this is particularly due to the “Panda” mark of the WWF, which inspires confidence. At the same time schools in the region and other institutions are looking for educational trips for environmental education. Organising activities of this kind is also entrusted to the company WWF Oasi, which has become a national point of reference on the matter. Since the establishment of the educational programme “Nostro bosco”, in 1995, demand greatly exceeded expectations (80 schools from across the region have visited the site since the first year).

The WWF would be ready to hand over control by transferring the management of its sites to local communities if real political will was shown. However, the WWF would probably keep a control, because the public institutions, especially the government, have no experience of managing full natural reserves. National parks only have a protected status which is not very binding. On the other hand, it would be good if a protection order was taken by local communities to protect these sites whatever happens, if the WWF were to

“deviate from its mission” in the years to come. On the whole, people are aware that the WWF performs work should be done by the authorities, and this gives it certain kudos among public opinion.

Jean-Michel Pirastru pointed out that in France the ONF is required to complete certain works to ensure visitor safety (clearing over 10 to 25 metres around the paths, publication of a weather index, etc.). Does the fact that there is an entry fee for Monte Arcosu not make the WWF responsible in this respect?

Marzia Ventimiglia responds that a waiver is included in the entry ticket, and that the code of conduct is quite strict. On the other hand, the WWF is not in favour of an excess of intervention on the environment that would encourage speculation problems. In fact, in Italy, as in France, there is now a genuine “fire lobby” which makes a lot of money out of the prevention sites.

### The Sardinian Deer and natural balances

The short feet and antlers of the Sardinian Deer are explained by the species’ adaptation to the conditions of the maquis. The Deer actually feeds on the shrubs (Myrtus, Phyllirea...) or small-sized trees. It also likes open environments.

A deer counting campaign is held every year in September (the rutting season, which makes identification of individuals easier).

You might well ask whether the steep rise in the deer population is not likely to cause problems in terms of pressure on the environment.

Giovanni Paulis points out that, until today, the quantity of food available (Myrtle, Filaria, etc.) has increased in parallel by recovering the ecological environment, which permitted a balance to be maintained. In fact, prior to the 1980s, poaching was accompanied by frequent clearance cuts carried out by the former owners to make a profit from the wood (charcoal, mines, etc.), with the consequences that are we know about in terms of erosion and biomass loss, in particular for the genera *Quercus* and *Phyllirea*.

Another source of natural imbalances: in some sectors, a paper pulp plant project led to the replacement of the Mediterranean maquis with *Eucalyptus* plantations. Actually, the planned plant never materialised!

Finally, it is important to remember that, in addition to the Deer which is a species of symbolic importance, many other endemic plant and animal species can be found on the site<sup>14</sup>.

### The risk of wildfire

The risk is actually significant. Although the last great wildfire dates back to 1938, leaving the environment to evolve naturally risks increasing the occurrence of devastating wildfires. But the firebreak lines were deemed ineffective because of the frequent high winds in the region. The local plans are not mandatory, but there is a Regional Plan providing basic measures. In addition, the WWF took the initiative to build a watch-tower enabling volunteers to watch for wildfires starting during the dry season. Aerial intervention is then immediate in case of trouble.

The presence of volunteers is however insufficient to combat the poachers. To do this, the national office and the WWF Med PO offer their help to train people in how to manage protected natural areas.

### Towards multifunctional site management

One of the current challenges for the WWF is to move from a management almost focused on protecting Deer, to more comprehensive site management, and the development of participatory governance methods. In particular, this requires the establishment of a management plan.

It will be necessary, for example to cut some wood to maintain the environment in accordance with the Ente Foreste, and limit the risk of wildfires. But this is likely to be poorly received by the public. This therefore requires the implementation of an adapted governance strategy.

In the beginning, relations with the local authorities were difficult because the latter were mistrustful of the project. Then they became aware that the protection action only provided constraints but also benefits, for example, by making the region more attractive in terms of tourism, and that the approach well and truly consisted of integrating local stakeholders in the considerations.

All commercial activities have been entrusted to the company “WWF Oasi” (a for-profit company, in which the NGO the WWF is the majority shareholder). There are production actions (local farms, etc.), tourism, selling products, etc. This works well, once again, thanks to the recognised “mark” that is the Panda. The long-term objective is to fully fund the protection of the site through commercial activities, linking with the concept of “Payment for ecosystem servic-

<sup>14</sup> - We can admire some photos of deers, wild boars, amphibians, birds of prey or still orchids present on the site by visiting Giovanni Paulis’ blog: <http://www.longufresu.it/>.

es”, while improving the quality of the services provided on the site.

However, some were worried that the economic aspect would become too central in comparison to the conservation of the site. A Regional Natural Park project has been launched at the initiative of the WWF. This would particularly unite all these issues a bit better, with a view to developing a truly integrated local development approach.



Photo 11 : Debriefing session in Capoterra.

Developing this concept of Payment for Ecosystem Services (PES) allows the available resources to be released for individuals or contractors who commit to environmental preservation.

There are actually several positive outcomes: while allowing access to quality water, it promotes biodiversity, sustainable management of woodlands and local job creation, etc.

Another important action of the WWF Portugal was the development of a “Toolbox” for the sustainable management of biodiversity hotspots. This work still needs to be refined and clarified. Comments from partners are welcomed.

Miguel Bugalho then presented the development of the Web GIS (online Geographic Information System). The Portuguese territory has been divided into small area units linked to a database. You just click on a sector in order to obtain a variety of information such as locally threatened species, water resources, etc.

The HABEAS (Hotspot Areas for Biodiversity and Ecosystem Services: <http://www.habeas-med.org/>) portal has in particular intended to introduce this mapping tool and to return additional information (for example, reports of interviews with experts on the issue of payment for environmental services). The WWF is looking for data concerning other countries to supplement this work.

## Project of the WWF Portugal

One of the landmark achievements of the WWF Portugal within the framework of QUALIGOUV was the support for an agreement between the company Coca-Cola and an association of Cork Oak growers.

The main aquifer that feeds the Coca-Cola plant is located under cork oaks stands, whose owners have founded an association (APFCertifica Group Scheme) and adopted the practice of sustainable forestry management in order to obtain FSC<sup>15</sup> certification. Concerned about the sanitary quality of water, Coca-Cola therefore funded the APFC association with up to 10,000 euros a year, so that the owners could invest in maintaining sustainable management and obtaining certification on the 600 hectares considered decisive for the quality of the aquifer used by the factory. The WWF plays the role of intermediary in this exchange, via the HABEAS portal.

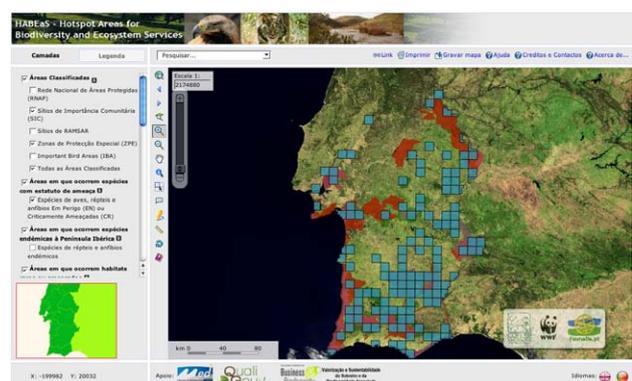


Figure 2: HABEAS web platform and online cartographic tool developed by the WWF Portugal in the framework of the project.

15 - Forest stewardship council (FSC) is a certification label for the good quality of the forestry works, allying of environmental and social criteria, and considering the origin of the wood. It guarantees a sustainable way of exploiting the forest.

# Elements for Capitalisation

## Fifth meeting of the peer group (Marseille, France, 26 of May 2011)

### Debate on the ONF's activities

The field trip organised by the ONF was presented from the perspective of project management (what can be done, how can it be done, how can it be used, developed, etc.).

We have seen relatively disparate things. It is, in fact, difficult to establish a direct link between the marteloscope and the "Mazan project", or even less between skidding by animal traction and the Meadow viper, for example. However, this diversity of aspects clearly shows that, on the same massif, there is a multitude of issues related to the forest (welcoming the public, biodiversity, harvesting wood, etc.). This is in fact the wealth of the ONF's action. It should also be noted that the ONF went to seek ways of putting local timber to use in conjunction with communities. The technicians have designed buildings according to the available timber, and not the contrary. They built a storage hangar with wood proceeding from a radius of 500 meters around the site. This reversal of the order of things is, in itself, a factor of good governance.

All these themes are complementary and interconnected. The overlapping of multiple decision-making bodies on the Ventoux should be streamlined to make things easier.

The marteloscope is a good means of raising awareness among stakeholders not directly concerned by forest issues. The Regions of Valencia and Murcia are considering how to put it in place.

The ONF has conducted important work, especially at the level of cuts in the Cedar forest. However, it lacks a clear explanation about the governance method applied regarding timber cuts, and about the way to involve local stakeholders in management measures.

It is worth knowing that these cuts were already planned in the forest management plans. In the Public Forest of Bédoin, the Plan was discussed with the local authorities, but not with the local associations. Some specific stakeholders such as hunters or stakeholders directly involved in the forest were also consulted. This plot had been hammered and put up for sale, but it remains unsold. The project of the municipality of Mazan, which is looking for Cedar wood, therefore enabled the ONF to find an outlet for this high-quality

wood, while associating the municipality of Bédoin with the project.

Jean Bonnier recalls that the Ventoux is a Massif whose forest is essentially public, which means that almost all the forest actions are carried out by the ONF. Therefore, we could imagine that the ONF does not consider it necessary to have always the concern of good governance and to act in a sovereign way, with a specific overall strategy. For example, concerning the pockets of senescence, it does not seem that there has been concrete consultation with the other stakeholders. The substantive question is therefore whether the governance procedures are the same in all circumstances or if they vary from one project to another.

Daniel Seven responds that the internal directives (imposing pockets of senescence, biological reserves, etc.), are the application of a contract with the State, supposedly rewriting a request from society as a whole. Consultation therefore only intervenes in the breakdown of these directives locally. In an important forest such the Ventoux, it was normal to apply a special commitment to implement these specific measures. However, this slightly "exceeds" local policies.

Jean de Montgolfier commented on various points:

Is the governance formal or informal? Good governance is also about taking things into consideration: if we only work informally, it's just "idle chit-chat". On the other hand, if it is just formal, everything is blocked (administrative unwieldiness). A good manager must therefore balance these two spheres well and this is not always easy to do.

The marteloscope presents enormous opportunities, but there is a true challenge in terms of pedagogical engineering. It will not, in fact, be addressed in the same way by a professor of the Brevet technicien supérieur (Higher Education Diploma) in forestry, natural sciences, a Masters in Ecology, or even by an instructor of managers in professional development. The tool should be able to be adapted for each type of demand to really increase its value.

Energy-wood presents a risk in Mediterranean forests that the forest will be over-exploited in the accessible areas, while being under-exploited in the areas away from the access roads. Moreover, it might be particularly interesting to maximise on clearing operations. Therefore, it would be interesting to study the possibility of integrating this idea in the management plans. Moreover, on the Ventoux, the Mediterranean forests do not just produce energy-wood, but also quality lumber, countryside and recreational amenities, etc.

The pockets of senescence arise from a contract between the French State and the ONF, but also, upstream, from commitments by France to maintain

the ancient forests, including via the Helsinki Accords (1975), but also by the Convention on Biological Diversity (Rio, 1992). Moreover, the pockets of senescence put in place by the ONF are maybe also the subject of ZNIEFF (Natural Area of Fauna and Flora Ecological Interest) or another local protection status. There is a risk that people are not reflected in it.

Jean Bonnier found a paradox: on the various sites that we have visited so far, there were comparable procedures, with complex and sometimes cumbersome organisations. When the latter are ancient, consultation with the locals seems much easier (this is for example the case of Murcia). However, here we have a very unified and homogeneous massif which does not even have a Forestry Charter. The overlapping of different regulatory measures (Biosphere Reserve, Natura 2000, Biotope Order, etc.) is not accompanied by an overall governance tool that could, for example, constitute the Regional Natural Park in project.

Generally, the trip was very much centred on the ONF due to the fact that, on the Ventoux, the ONF is an indispensable stakeholder unlike other territories where it coexists with other important stakeholders. This is also the impression given by the documentary showed by Philippe Bourdenet, with a slightly propagandist tendency, and not really presenting the consultation and governance methods deployed by the ONF. Would the creation of a Regional Natural Park result in a change in the power relations in the region? Some stakeholders, such as the Cynegetic Interest Group (hunters), are however opposed to the proposed park.

Governance requires time, energy and resources. It is also a paradox of our society: on one hand, we encourage institutions to specialise as much as possible (to focus on an area to waste less time, cut fixed costs, etc.) and, on the other hand, they are asked to improve their governance, but without being provided with the necessary resources. Local institutions are of course looking to develop their governance, but they seldom have the resources. The QUALIGOUV project therefore needs to point the finger at this problem and to demonstrate that “reaching an agreement is never a waste of time!”

However, many do not respond to invitations as there is not an emergency or a particular conflict to resolve. Local stakeholders manage their priorities and their schedules are busy because of the many forums they take part in. It must be borne in mind that this overlapping of decision-making bodies is imposed by law. This is a real problem. All this should be streamlined, while keeping in mind that these various committees also perform a supervisory role. A specific problem can arise at any time, which is why it is important to meet regularly despite everything.

In the other projects (Murcia, Valencia and Luberon), the problems are primarily discussed in the management structure of the Park via the specialist technical commissions, which relegate the other “committees” on a secondary level. When you have a structure comprehensively tackling the various local issues, you work more effectively. It is a weighty argument in favour of the Park. The ONF, and maybe the Province of Taranto, should learn lessons from it.

Are some people always sceptical of the ability of a park to ensure this comprehensive approach to governance? For example, the Regional Natural Park of the Luberon creates groups of owners in the context of the QUALIGOUV project. They would need, once the latter is finished, support from the Park for a certain period of time prior to becoming autonomous. However, the Park prefers to give priority to other sectors (biodiversity, tourism, etc.).

On the other hand, stakeholders’ positions can change at any time, according to their own interests. “Everyone is always in agreement to protect the forest and put it to good use, but when it comes to cutting down a tree, there is systematic staunch opposition” (Daniel Seven).

The presence of a relatively established structure and admitted by the local population however, seems to be a factor facilitating a better governance. The extreme counter-example is that of the current situation of the Park of Gravines, where the prior absence of participatory structures makes implementing a dynamic of concerted action difficult. Patrizia Tartarino recalls that it had to start from scratch. In the participatory meetings, we often hear people saying: “it is the first time that we have been asked for our opinion”. The professional organisations have been consulted, but it was not easy because no one locally knew anything about the project.

In governance, there is also an audit and evaluation dimension. This allows stimulation and the calling into question of the actions. In France, there is an important audit in some sectors such as research, while the territorial communities tend to be judgmental, particularly when they are positioning themselves as funders.

Michel Bourrelly, from the General Council of the Bouches-du-Rhône, notes, however, that the two Parks in the Bouches-du-Rhône region are administered by union committees from the General Council services and holders of a moral responsibility. They act like fully-fledge communities. However, a municipality has never been seen to be audited, for example. On the other hand, every 12 years, the Park has to undergo a periodic review of its Charter, which is when the actions undertaken during the previous period are assessed.

Raquel Moreno explains the case of the Valencia Region, where there are 3 management levels:

- The Management Board (Consejo directivo).
- The Steering Committee (Junta rectora) made up of representatives of local stakeholders.
- The regional government which manages the implementation of the decisions of the first two organisations via the services of forest management, wildfires, forest health and biodiversity, etc.

These different levels act in consultation and are, each in their own way, representative of the stakeholders and the population.

Finally, a problem of scale remains. The governance of a pocket of senescence does not represent the same issues and procedures as the governance of an entire massif or a park.

## Other matters

The partners do not always know how to promote what they are doing. Thus it can sometimes give the impression that they are not moving forward, although a lot of things are in course of being completed. The peer should be the intermediary between the partner and the AIFM to improve the transfer of information, and do so in the form of summary documents, and not just from the raw material, even if it is better for the latter to be searchable as soon as it is available, without being too perfect.

Moreover, there is a problem of communication: it is not enough to put the information on the website, it also needs to be “publicised” by digesting and sorting the documents (that is one of the collective roles of the peer group) so they can be informed. In fact, it is not enough to say “everyone is aware of the situation because it is on the website”. This also applies to governance in general. The formula “ignorance of the law is no excuse” is not enough in itself. To govern well, you also need to know how to explain and communicate well.

This applies to the deliverables, which are the minimum production from the partners, but also to the other internal working documents. If they are not translated, they should be at least summarised without necessarily worrying about the style.

Gathering information on the website has several advantages such as being able to guide people external to the project who are interested in such and such aspect in particular.

In conclusion, each peer is responsible for retrieving the documents produced by their partner, summarising

them and forwarding them to the peer group via the AIFM. This is a decision established by the peer group.

Organisation of the sub-working groups on thematic insights with a view to drafting part II of the final report.

Interesting things have been carried out by each partner, but we must now increase the collective added value in terms of transfer and capitalisation. To do this, sub-working groups have been put in place to prepare thematic insights and to organise the transfer of tools and “transferable” methods. They are listed in a summary table with the partners concerned in columns and the work themes in lines (see Complete Report of seminar 5, p.46). The person responsible for each sub-group will be in charge of making the link between the drafting of the final capitalisation report, which is tasked to the AIFM, and the progress of the debates within its sub-group.

Patrizia Tartarino thinks the final production should not be too intellectual and focus on concrete facts. Indeed, Europe has adopted a project which we must support. Deeper reflection could be the subject of a QUALIGOUV II project.

The Generalitat Valenciana drafts a plan in this regard that will then be disseminated to the public prior to organising a popular consultation. It may therefore provide the “Interviewing society” (Focus Box 1) sub-group with some elements.

In France, the regional planning plans are the subject of a consultation method. This could be an interesting transferable tool which could constitute a complementary contribution from the ONF to this group (Daniel Seven).

On the theme of “wildfire”, Jean de Montgolfier believes that the Spanish projects systematically lack firemen as consultation partners. Therefore, they could benefit from the experience of the Alpilles on this subject. After a wildfire firemen and foresters should go into the field together to assess the causes and measures to improve, especially regarding the positioning of the access paths.

Raquel Moreno replied that, in the future, the Generalitat Valenciana will take account of this comment, but that the administrative framework in Valencia is different. The technical knowledge belongs to the foresters.

Jean Bonnier adds that Spain worked hard to partially solve the problem of wildfires, well before France. This is why collaboration with firemen is, admittedly,

not so developed, but it is less necessary than in France. Thus, Valencia is rather a model for wildfire prevention.

As another example, we can mention Luberon Park which strives to bring forest owners together to establish joint management plans. It has therefore developed a method of interviewing private owners as well as a community model with special statutes ("Free Union Association"). It joins the work of Miguel Bugalho (WWF Portugal) which aims to support owners when negotiating to receive payment for environmental services. An exchange will be created between them both in the context of the sub-group "Interviewing private owners" (Focus Box 2) and could possibly benefit other potential partners. This process of gathering owners may, on the other hand, apply to other sectors such as protecting forests from wildfires.

One aspect not to be overlooked is the overlapping and the consistency of plans or planning documents with the existing regulations (plans for Local Town Planning, Natural Areas of Fauna and Flora Interest, Regional Consistency Schemes, etc.). For example, when establishing a Forestry Charter, their compatibility with any plans for protecting forests from wildfires or others should be checked. This is why we cannot be satisfied with a traditional diagnosis ("things that don't cause distress": natural environment, demography, etc.). We need to perform a real "governance diagnosis" work by making a list of all the stakeholders and the statutory documents that intervene in the region. The document on stakeholders' role on a determined territory, created by Louis-Michel Duhon for the Alpilles, can contribute to this in the beginning when setting up the project.

David Gasc proposes generalising the theme group "forest charter" to "governance diagnosis", or even combining the 3 lines in the category "Tools for governance" (Focus Box 4). This proposal has been approved by the group.

Concerning the marteloscope, Aline Salvaudon is a staunch supporter of the issue and has a more pedagogic approach, whereas the ONF has a more forest management approach. However, as Louis-Michel Duhon is already responsible for several sub-groups, Daniel Seven suggests that Philippe Bourdenet should run this sub-group. Finally, he proposes making the link with an experience of putting an amenagementscope in place, conducted by the ONF in the eastern Pyrenees.

The WWF's activities could fall under several categories (Web GIS, payment for ecosystem services, etc.).

A forest must provide services, either in terms of amenities or of timber production. Currently, in the

Mediterranean region, work is mainly conducted to protect forests from wildfires, but this does not enable sustainable forest management. That is why the ONF wants to communicate more on the commercialisation project, because it is this type of approach that will enable us to return the Mediterranean forest to the standing it deserves by showing that it is capable of providing products that can be used for construction or other purposes. Daniel Seven therefore proposes adding a theme on promoting timber and its penetration in local development.

Finally, the sub-groups will produce boxes (2 to 3 pages maximum) which will be the core of the project's added value and their final capitalisation report. They will help to show that the partners met to negotiate on specific and precise aspects.

Be that as it may, the group admits that, at this stage, everything is still open. If people still want to make changes or additions (additional rows in the table), they just need to mention it.

For example, Louis-Michel Duhon had the idea of looking at the concept of a "success story". For example, the Luberon presented a slideshow with simple territorial diagnostic maps for stakeholders, and then they explained the policy pursued in the region with documents such as the forest charter, the DFCI plan, the initiatives for biodiversity (Natura 2000, etc.), and then they projected the results of a survey conducted among owners to find out their expectations and concerns. It revealed that there is at least a 50% return of their concerns for the management actions undertaken in the region. This is moving in the direction of collective work by owners towards a common project. Thus, with a pedagogical method we can convince people that working together is beneficial. So, it would be interesting to describe any experience of this type. The proposal remains open.

Clarifications on other parts of the final capitalisation report

As regards point I. 4., it concerns a self-description of the results of the activities of each partner with an evaluative part (positive, negative, improvable, transferable) which should not be the result of a summary of Post-it notes, but emanate from the partners themselves. The aim is to reveal the specific contribution of the project.

The documents should be pre-digested and forwarded in summary form to the AIFM, which will gather everything and harmonise the structure and form.

Jean de Montgolfier suggests that the synthesis on the sessions “Forests, Societies and Territories”, written by Pierre Derioz, constitutes the basic background for Part III of the final progress book.

Louis-Michel Duhon would like to see the recipe for a governance process to work well in practical terms included. For example, it has been found that good governance has to happen through meetings and multiple encounters which require a lot of time and energy. This is often the limiting factor. It would be interesting to review the existing solutions to this problem.

## Capitalisation method

The writing of the final capitalisation book requires active participation from all the peer group’s members through the various above mentioned aspects. It must be recalled that this “pre-digesting” of the data and analysing the projects was part of the members of the peer group’s prerogatives. They are committed to doing this summary work, and not just participating in the seminars.

David Gasc revisits the idea that appears in the final capitalisation book, information on the methodological input of the project and the evaluation of its progress, compared to what was expected at the outset (operation of the peer group and method of preparing the project, etc.), as well as on the specific contribution of the project to the respective activities of each partner.

In the previous MED projects, the AIFM alone did the capitalisation. It was agreed that it did not have the necessary legitimacy to it. That is why it was decided, from the beginning of the preparation of the QUALIGOUV project, to create a peer group responsible for deeper reflection and to consult on the activities closest to each partner. Of course, not everything is perfect. Despite the presence of the peer group, we realise that there is always a lack of legitimacy, compounded by the irregular involvement of its members.

Evaluation of the ONF project and the seminar by the peer group

### I – Positive points

- Very nice field trip, very well organised.
- “Holistic” approach and the various aspects of forest management integrated. Diversity and complementarity of the actions undertaken is much appreciated by some of the participants, although barely perceived by others.
- Real desire to integrate the concerns of the differ-

ent stakeholders in the region (local authorities, protection of nature associations, hunters, timber industry, tourism, etc.).

- Strong interest in the marteloscope as a teaching tool.
- Successful research by local stakeholders for the best possible use made of local timber: local authorities, developer, architect and design consultants, operator and construction contractor.
- Operating procedures, sorting, and adapted sales.
- Establishing the concept of pockets of senescence.

### II – Questioning aspects

- Procedures for adapting the marteloscope to different categories of not always obvious audiences.
- Poor links between the presentation of the forest dynamics of the massif, and the use of the marteloscope to learn how to manage this dynamic. Ecological data on the resort is insufficient.
- Overlapping of several procedures in territorial governance and multiplication of their Management Committees.
- Low availability of stakeholders, fewer came than expected. Generally, the stakeholders do not have enough time to dedicate to participatory processes.
- Importance of hunting (60% of the income for the massif), difficult aspect to incorporate into forest management.
- Risks of phytosanitary plant health problems in the pockets of senescence.
- Documentary a bit too “propagandist for the ONF”, and disparate (general forest points and actions specifically related to QUALIGOUV).

### III – Potential improvements

- Work with education specialists on ways of using the marteloscope tool customised for different audiences (secondary schools, students, professionals, informed visitors, etc.).
- Consider combining the marteloscope with the aménagementoscope.
- Putting in place of a mechanism for monitoring forest dynamics (in various stands, especially in the old stands placed in reserve).
- Involve more scientists.
- Try to better link the various procedures (aging

plots, Natural Area of Ecological, Fauna and Flora Interest (ZNIEFF), Biological Reserve, Natura 2000, etc.) with a scheme that is as consistent as possible (compliance with a “green belt”).

- Try to simplify the procedures to achieve better coherence and effectiveness for regional governance, for example in the context of a Regional Natural Park.

#### IV - Transferable elements

The ONF is now in a position to give its testimony and experience on the matter of:

- establishing marteloscopes in other Mediterranean forests;
- the method for selecting and demarcating pockets of senescence;
- the creation of an international Mediterranean network of ancient forests;
- stakeholders' research approach and projects aimed at making the best use of the local wood, cutting processes and suitable marketing.

Moreover, it has once again been demonstrated that promoting timber is worth doing wherever possible.

### Sixth meeting of the peer group (Capoterra, Sardinia, 26 October 2011)

#### Collective reflection on the WWF's activities

Given the terrain and the structure of the vegetation, it is difficult to imagine that the site is a high-potential area for timber production. Moreover, there is a lot of talk about protecting the Sardinian Deer to the detriment of other issues which seemed as essential for the quality management of the site (preventing wildfires, etc.).

The “Open standards” method is judged to be excellent theoretically, but the implementation should be more connected to the realities of stakeholders in the field. The use of “Open standards” might be more adapted for management of the Sulcis massif in its entirety (70,000 ha) and does not require an analysis to be conducted as exhaustively as that which has been presented to a site such as Monte Arcosu (3,600 ha).

For example, a systemic and complete prospective analysis has been implemented by the Plan Bleu in the

1980s for the entire Mediterranean Basin. The method has enabled the participation of scientists and specialists from different sectors (ecologists, sociologists, planners, foresters, etc.) and from different countries, and gave rise to much appreciated links<sup>16</sup>. However, when the prospective exercise was redone in 2007, the method had been lightened. On a regional level, Plan Bleu developed the “Imagine” method<sup>17</sup>.

The WWF team has obviously done a good job of analysis using this logic diagram method (see Complete Report, Annex 1), but in terms of communication and participatory governance, it is not very convincing. An easier method should be found in order to involve more stakeholders, for a more participatory approach and better feasibility in the field.

Concerning the activities developed in Portugal, the establishment of Payments for Environmental Services (PES) is an interesting approach that other partners, such as Valencia, are looking to develop. In fact, it is interesting to consider the economic sustainability of the management to improve governance.

The fact of making the public pay to enter, by means of adapted communication is already one of the first approaches to PES (the visitor is asked to donate to the Park's management in exchange for an environmental and recreational service). In Portugal, the support for private owners by using the GIS tool, particularly to identify plots contributing to the quality of the water used by an industrialist (Coca-Cola), is also a good opportunity to start the practical application of the concept of PES.

PES schemes are very topical. At one time there was a very regulatory environmental policy. Then, we moved toward market systems (Kyoto protocol, rights to pollute, etc.). The concept of PES is perhaps an ideal intermediary between the two. This could be the subject of a possible follow-up to the QUALIGOUV project.

One issue prior to establishing PSE systems is that of a clear definition of the rights of ownership and use of the environment. This is not the same thing depending on whether you consider these usages to be private or public. Either the owner may decide to close (closure) or demand to be paid for the environmental services, or we consider these environmental services as part of the country's heritage. The rights need to be

16 - The Blue Plan, Future of the Mediterranean Basin. Web site: [www.planbleu.org](http://www.planbleu.org).

17 - The “Imagine” method consists of asking groups of stakeholders to build graphic plans of the functioning of their territory, and to give their vision of the sustainable development and its translation in terms of indicators of sustainability. Finally, scenarios are being elaborated (trends, degradation, alternatives, sustainable management of the evolution. . .) with a system of communication around the stakes.

clarified. For example, the elements that have always been free, and which should remain so, should be better defined. The challenges are therefore both political and technical. The WWF has initiated an important reflection on the above. It would be good if it participated in a new work programme on this subject.

Each owner should “invest” with their own resources to implement the day-to-day management measures and “get their hands dirty”. But there is a risk of not integrating very well other stakeholders in the field. The WWF finds itself in a situation that is both ambiguous and courageous.

It is noted that there is a real difference in approach between the activities carried out in Portugal and on Monte Arcosu, owned by the WWF. In the presentation of the Monte Arcosu project, we found some of the same mistakes that we sometimes blame the ONF for: “we’re at home, so in the end we’ll do what we think is good”. Only a few partners (the San Nicolo cooperative and Province of Cagliari, see excerpt from the Management Plan project, Appendix 1 of the Complete Report of the 6<sup>th</sup> seminar) are associated, to the detriment of the others (hunters, tourists, foresters, etc.). This is the big difference with the projects where there are parks, where we cannot overrule a consultative approach with local stakeholders.

In general, the aspects purely related to governance, as well as the specific contributions from QUALIGOUV to the WWF’s activities (“What would not have been implemented without the input of the project?”), were hard to perceive in the explanations and answers to the questions.

As the owner, the WWF has a huge responsibility over the management of this site, and it manages it quite well despite the difficult decisions that it has to make. It’s an interesting but very complicated project, that is why the link with the governance is sometimes difficult to spot.

We must remain aware of the heterogeneity of the actions and QUALIGOUV’s partnership. Our diversity is a wealth, but it sometimes poses management and cooperation problems.

In addition, Sardinia only represents part of the actions of the WWF in the context of QUALIGOUV. Partners have heard little since the beginning of the project about WebGIS and PES systems implemented in Portugal, for example.

For the WWF, the main contribution of the project was the expertise of the peer group and its suggestions and analysis. Sharing good practices is not an easy thing to do. For example, the marteloscope seems to be a pow-

erful tool, but it cannot really be adapted to the WWF’s activities.

In addition, it might have been desirable to strengthen the role of the peer group in its supporting role of the partners’ projects. Perhaps the possibility of integrating other stakeholders (specialists, field technicians, local authorities, etc.) should have been considered in order to enrich the debate.

That said the collaboration is likely to continue, whether it is through a new project or in an informal manner by exchanging ideas, methods, tools, etc.

## Evaluation of WWF projects by the peer group

### I – Positive points

- Outstanding site, adequate for an experimental implementation of methods and standards (“Open standards”) advocated by the WWF.
- Success of the Sardinian Deer protection policy (the goal when the reserve was set-up can be considered achieved).
- The fact that the WWF is the owner of the site gives it a lot of room for manoeuvre, and also allows it to test what the owners’ specific issues are.
- The “Open standards” method seems very convincing to define and implement regional projects, (public, associations, economic stakeholders, etc.).
- Payment for Environmental Services (recreation, conservation and biodiversity, etc.) are likely implemented on the Monte Arcosu through visitors entrance fee payment, enabling the economic sustainability of the site’s management.
- Interesting approach of Payment for Environmental Services in Cork Oak plantations by an agri-food industrialist in Portugal.
- Involvement of a structure dedicated to commercial activities (WWF Oasi) which is associated with cooperatives of people and institutions to develop tourism and environmental education on the site.
- From a certain point of view, positive role of poachers who create a social consensus and who contribute to there not being any wildfires in the massif.

### II – Questioning aspects

- The use of an extremely detailed analytical method of the context of Monte Arcosu and of its management objectives has proved to be a good heuristic analysis method within the WWF. But on the other hand, it is quite a poor tool in terms of communication,

because it is likely to result in a lot of unproductive discussions around details (“Why does this case not feature in the scheme?”; “Why has this link been followed and not another?” etc.).

- The local authorities (Sardinia Region, municipality of Uta) have not been very involved, neither has the Ente foreste de Sardegna, the local forest authority. However, the Province of Cagliari, which contributes through subsidies, is more so.

- Due to the original motivation for this purchase, the WWF has logically chosen the natural evolution of the Sardinian Deer population as a priority objective, in which it is not directly involved. But there is no concrete evidence to assess the impacts of this choice on the environment as a whole, or on certain plant or animal species, other than Deer.

### III – Potential improvements

- For the purposes of communication, present the analysis of the (“open standard”) objectives more clearly and concisely than by means of the exhaustive logic diagram.

- Undoubtedly, one day, it will be necessary to consider regulating the deer population. Hunting could possibly contribute to this, while constituting a “social” activity and cash flow for the WWF.

- Develop the analysis of environmental services, the additional costs incurred, and the sustainability of the financial balance of the management.

- Anticipate reflection on the possible conflicts between protection and opening to the public if the number of visits, which is currently low, were to substantially increase.

### IV – Transferable elements

- The “Open standards” method can be recommended to be applied in many other cases of integrated management of forested areas, particularly in protected areas.

- A reflection project and pilot experiments on payment for environmental services could be considered as a follow-up to the QUALIGOUV project. The Monte Arcosu site could, as a result of the experience gained by the WWF, be a good component to support such a project.

- The use of GIS (Geographic Information Systems) is very interesting for information and awareness-raising among stakeholders in the field of environmental issues; particularly to inform forest owners of opportunities to promote environmental goods and services (see website <http://www.habeas-med.org/>).

### Preparing for the project’s conclusion

The end of the project is set at 14 May 2012. Certification of the project is to be completed in April, all deliverables, including the final capitalisation book<sup>18</sup>, will be available in their final form (translation included) by the end of February, so that they can be distributed by the end of March.

Jean de Montgolfier believes that everything is going pretty well, but this work needs to be further accelerated by making it more collaborative. This should be reflected by the drafting of focus boxes, which should be finalised very soon by the sub-groups which are responsible for them.

As regards the final results of the pilot activities, each partner must provide a self-critical summary of what has been accomplished. This will be integrated into the final capitalisation book (see below) but also in the QUALIGOUV website, and possibly in the WWF’s toolbox.

The WWF decided that only the “Open standards” method and WebGIS would be included in the toolbox. All of the tools of the partnership will be put online and promoted on the website [www.qualigouv.eu](http://www.qualigouv.eu). The intellectual property belongs to the WWF, but the use of the tools developed for non-commercial purposes will be free.

Taranto’s WebGIS will also be placed online on the website.

David Gasc recalls that all partners’ deliverables which can be disseminated must be sent to the Lead Partner and to the AIFM as soon as possible, so they upload them. The website [www.qualigouv.eu](http://www.qualigouv.eu) will be searchable for at least one year after the end of the project (the domain name and hosting have been hired for this duration). Jean de Montgolfier thinks that the capitalisation needs to be able to easily and fully retrieve the information for a much longer period (at least 5 years after the end of the project). But this poses the problem of paying for these costs because they will no longer be eligible for the ERDF.

### Final capitalisation book

This document aims to present a summary of the project, then its results and, finally, the recommendations and best practices of forest governance in the

<sup>18</sup> - It is a technical report, that should not be confused with the administrative final report that the Lead partner has to produce. This last one must be written up on a further time, but this is not the case of the technical documents of the partners, whose expenses must be declared before the official end of the project (14 of may). The modalities of the end of the project will be specified by the Lead partner.

Mediterranean regions. It will synthesise the three progress books and summarise what we can learn from this project.

A provisional version has been produced by the AIFM. The members of the peer group consider that it is a very satisfactorily starting point after some adaptations and additions. Some clarifications still need to be made and the common points still unidentified between the projects need to be highlighted, as well as the complementarity of some actions.

The concept of PES deserves more attention, particularly in the anticipation of a possible future project on the issue. It seems appropriate to add a paragraph on the issue in Part III. 1. 2.

Adding a list of deliverables, annexed to the report with a summary technical description based on a few keywords and referring to the complete document, is also suggested (“Find out more...”).

As regards the summary of the results of the pilot activities (paragraphs I. 5. to I. 11.), each partner, assisted by their peer, should draft in a self-critical way, as far as possible, a summary of 2 to 3 pages establishing an assessment of the activities conducted as part of the project, including the following five points:

1. What worked well compared to the forecasts (why?).
2. What did not work so well (or poorly) (why?).
3. What can be improved for the future (how?).
4. What is transferable to other regional partners (which ones, how)?
5. What has enabled QUALIGOUV and would not have been materialised without the project?

### Focus boxes

The focus boxes are designed to be incorporated in Chapter II of the final capitalisation book.

A full version (free and variable volume: 3 to 10 pages depending on the case) can be downloaded online from the website [www.qualigouv.eu](http://www.qualigouv.eu) (and possibly annexed to the Final capitalisation report), and a summary version, a maximum of one page, will be incorporated in the contents of the progress book.

A single summary box will group together all the case studies with the same focus, referring, where applicable, to the detailed documents that can be downloaded from the website, or in the appendixes of the final capitalisation book.

The WWF Italy has experimented the application of “Open standards” method on Monte Arcosu. It

therefore proposes drafting a box on this method.

David Gasc thinks that the information relating to “Open standards” could be included in the box “Consultation and governance tools”. Moreover, this final capitalisation book could include a comparison (advantages, disadvantages) of the various governance tools or methods that have been tested in the framework of QUALIGOUV (Master plan, Regional Forest Charter, Wildfire Prevention Plan, “Open standards”...), together with other methods such as “Imagine”, “Model Forest”, etc.

Jean de Montgolfier thinks that the fact of detailing and comparing the different tools could be the subject of a follow-up to the project. On the other hand, writing a short introductory text and a brief comment on each tool tested in the framework of the project within each themed file (full version) has been proposed.

Daniel Seven proposes that the forum, soon to be organised by the ONF, should be regarded as a communication/consultation activity to possibly be incorporated in the box “Consultation and governance tools”.

Raquel Moreno explains the box of Valencia about “Active social participation in Fire Prevention” (Focus Box 3) deals with the experience of each Valencian pilot site, as well as that of the Park of Serra d’Espadà. The guidelines will be drawn up to help with establishing Wildfire Prevention Plans, at times drawing from ideas exchanged with partners. We also expect additions from the Region of Murcia.

A box on the marteloscope (Focus Box 6) will be created in cooperation between the PNR of the Luberon (Aline Salvaudon) and the ONF (Philippe Bourdenet). A lot of people have expressed an interest; therefore this awareness-raising tool should be presented in an accessible way.

Illustrations should be added as much as possible. Approximately one per page, of all types (graphs, tables, maps, photos, etc.), would be ideal, in order to make reading the report more attractive. In addition, these boxes may eventually be published and disseminated independently, for example, by preparing individual sheets to be printed in colour for widespread dissemination. So it would be good if they were minimally visually attractive.

The ONF will endeavour to provide photos and a short box on the “Mazan project” rather than on the wood-energy project, given the low level of progress of the latter project.

Patrizia Tartarino proposes writing a box on the management and improvement of biodiversity (which

might be called “management close to nature”), a theme close to the work of the WWF on the way in which owners can manage biodiversity, according to Miguel Bugalho.

## State of progress of the partners' activities

### Region of Murcia

#### Technical achievements between April and September 2011 (semester 5):

- Development of actions in 4 villages of the Park. The work is progressing well, especially in the municipalities of El Berro and Gebas.
- Reflection on a possible improvement of the Master Plan concept.

#### Particular difficulties and obstacles encountered:

- The worrying macro-economic situation leads to cash-flow problems, which make it difficult to commit the necessary expenses to complete the project activities a return to normal is hoped for next semester.

#### Activities planned for semester 6 (October 2011 - March 2012):

- Coordinate local monitoring committees.
- Develop the handbook on good practices and the methodological guide.
- Create synergies with the other partners that will, in future, create a “network of sharing”.

### International Association for Mediterranean Forests

#### Technical achievements between April and September 2011 (semester 5):

##### Action 1: Peer group and capitalisation documents

- Publication, translation into English and dissemination of the second progress book of the project.
- Start writing the Final capitalisation report.
- Remind the partners to write the thematic insights defined by the peer group.

##### Action 2: Intermediate seminar

- Active participation in the organisation of the 5<sup>th</sup> seminar of the project, jointly with the ONF.
- Writing and dissemination of the Report of the 5th seminar.

##### Action 3: Developing inter-project synergies

- Participation in the capitalisation meetings of the MED Programme, in Rome in June, and in Marseille in November 2011.
- Developing synergies with various projects (Forêt Modèle, FOR CLIMADAPT, Pyrosudoe, etc.).
- Communication about the conclusions of the 2<sup>nd</sup> Mediterranean Forest Week, particularly the sessions “Forests, Societies and Territories”, closely related to the QUALIGOUV issues.

##### Communication activities:

- Publication of a pamphlet for presenting and promoting the project.
- Writing and disseminating Newsletters No. 3 and No. 4.
- Updating the website [www.qualigouv.eu](http://www.qualigouv.eu) and uploading the working documents provided by the partners, translation, summary, illustrations, etc.

#### Activities planned for semester 6 (October 2011 - March 2012):

- Publishing and disseminating Newsletters No. 5 and N° 6, the report of the sixth seminar and the third progress book.
- Moderating the website [www.qualigouv.eu](http://www.qualigouv.eu) and uploading the publications and the distributable documents online.
- Remind the partners and harmonisation of the thematic insights of the peer group.
- Publication and dissemination of the Final capitalisation report.
- Co-organisation of the final seminar.
- Continuation of the work to develop inter-project synergies.

### Regional Natural Park of Alpilles

#### Technical achievements between April and September 2011 (semester 5):

- Governance diagnosis: the operation has been completed.
- Sociological survey: the operation has been com-

pleted, and the conclusions have been presented.

- Interactive terminals: Approximately 200 filled questionnaires were collected on the date of the seminar.

#### Particular difficulties and obstacles encountered:

- Samuel Jaulmes handed in his resignation to the Park. Jean-Michel Pirastru will be taking over. The timetable will broadly follow its course.

- Sociological survey: despite the people questioned have a good knowledge of the territory, we regret a relative lack of representativeness.

#### Activities planned for semester 6 (October 2011 - March 2012):

- The survey is continuing via the interactive terminals, currently in operation. The visitor answers a random set of 10 questions plucked from a list of 60 questions. They constitute a further investigation and a key factor for awareness-raising. Redeployment among schools and residents while preparing the governance strategy is envisaged.

- Development of the strategy: currently in operation.

#### Communication activities:

- Presentation of the project during a press conference to launch the operation "Jeunes en forêt" ("Young people in the forest"). An article was published in the daily newspaper "La Provence".

- The software for the online survey has been put online on the Park's website.

#### Steps for the co-construction of the governance and communication strategy:

- Adhere to the perspective of the Regional Forest Charter of the Regional Natural Park of Alpilles, currently blocked by the constitution of the Inter-Municipality Clearing Plan and the Forest Management Plan.

- Taking expectations and overall context into account (current situation regarding forest cover and its potential).

- Starting with the current situation, creation of "focus groups" (general, thematic and geographic) with forest management stakeholders.

- Definition of the appropriate governance modes and tools by thematic issues (number of people visiting, landscapes, biodiversity, economy, etc.).

## Regional Natural Park of Luberon

### Technical achievements between April and September 2011 (semester 5):

#### Step 5: writing the management plans

- Completion of the diagnoses (excluding landscape) of the 2 pilot sites.

- Assembling the file "Landscape study" (site of the Ocre).

#### Step 6: implementing forest management

- Technical diagnosis of the 3 priority areas for action.

- Field trips.

#### Local consultation meetings:

- Meetings to finalise the constitution of owners associations.

- Approval of the technical diagnosis by an ad hoc committee from the Forest Charter group.

#### Communication activities:

- Completion of the GIS tool.

- Uploading of the documents on the website [www.qualigouv.eu](http://www.qualigouv.eu).

- Organisation of three days of biodiversity training for owners.

- Preparation and organisation of the festival "The 4 seasons of the forest" (entertainment for children, information stands for forest stakeholders and industry partners, demonstration of technical and management tools. More than 600 people attend.

### Particular difficulties and obstacles faced:

- The integration of the landscape issue is still missing in the management plans.

- All the tools are in place, but the results are still modest.

### Activities planned for semester 6 (October 2011 - March 2012):

- More work on organising owners associations (enlisting new members).

- Finalise the outlines of the management plans and integrate the landscape diagnosis in the management plan for the site of the Ocre.

- Prepare an assessment-evaluation of the QUALIGOUV actions.

National Forest Office

Technical achievements between April and September 2011 (semester 5):

- Materialisation and explanation of the purpose for the pockets of senescence.
- “Mazan Project”: cutting up and producing timber elements in a radius of less than 50 km.
- Implementation of a skidding worksite by horse: not necessarily cost-effective and can only be reproduced in certain conditions. A detailed assessment will be drawn up and a guide will be published on the issue.

Communication activities:

- Publication of a press article about the “Mazan Project”.

Particular difficulties and obstacles encountered:

- There are few wood construction projects in the French Mediterranean region. It would be interesting to try to understand why and what the wood selection criteria are for stakeholders.
- Integration of local authorities: It seems easier with the local authorities (municipalities) which are in direct contact with the ground issues, but much less so with the large regional communities.

Activities planned for semester 6 (October 2011 - March 2012):

- The publication of a multifunctional guide will be an important step toward the possible establishment of a Regional Forestry Charter, if the Park project takes shape.
- We need more reflection on how to integrate other stakeholders in the decisions made over forest management. The planning of meetings is envisaged. Ideally, it will be in the framework putting together a “forum” for consultation on the issue, in collaboration with the Syndicate for Mont Ventoux Management and Equipment.
- Pastoral development has an important place on the massif. Establishing a comprehensive diagnosis to coordinate with breeders is planned.

Generalitat Valenciana

Technical achievements between April and September 2011 (semester 5):

- Support for volunteers working on the pilot site.
- Completion of a first draft version of the good practices manual.
- Drafting of a methodological guide for the design

of Wildfire Prevention Plans (December 2011).

Particular difficulties and obstacles faced:

Recently, following the major restructuring of the State services in Spain, the wildfires prevention management and the environment services have been separated at the Autonomous community level. This has temporarily complicated the involvement of the Generalitat Valenciana in the project.

Activities planned for semester 6 (October 2011 - March 2012):

- Finalisation of the good practices manual (January 2012).

Province of Taranto

The delay has been made up for, but the situation did not progress much during the last month.

Technical achievements between April and September 2011 (semester 5):

- Organising meetings and seminars to disclose the results obtained during the project.
- Awareness-raising among the people concerned with the issues related to the Park.
- Presentation of a WebGIS: this is an interactive interface that offers access to descriptions of the different regional sectors, as well as for some plant species. 360° geo-localised photos illustrate the information.

Particular difficulties and obstacles faced:

Since the budget of the Province of Taranto is low, the functionality of WebGIS is limited, but all the same it is an appealing tool for the public.

Activities planned for semester 6 (October 2011 - March 2012):

- Dissemination of the results obtained during the previous stages.
- Definition of the relations between the Park administration and the public and private owners of the considered natural areas.

# List of participants to the six technical seminars of the QUALIGOUV project

- First seminar: 22-24 June 2009, Murcia [1]
- Second seminar: 18-20 November 2009, Alpillles/Luberon [2]
- Third seminar: 27-29 April 2010, Taranto [3]
- Fourth seminar: 20-22 October 2010, Valencia [4]
- Fifth seminar: 24-27 May 2011, Mont Ventoux/Marseille [5]
- Sixth seminar: 25-27 October 2011, Sardinia [6]

Participant	Organization	Country	Email	Seminars
AFXANTIDIS Denise	Forêt Méditerranéenne	FR	denise.afxantidis@foret-mediterranenne.org	2 ; 5
AGUILA GUILLEN Manuel	Municipalité de Alhama de Murcia	SP	manuelaguila@alhamademurcia.es	1 ; 2 ; 3
ALONSO DIAZ Angela	Région de Murcie	SP		1
AMANDIER Louis	CRPF PACA	FR		3
ANDUJAR DIAZ Juan Jose	Région de Murcie	SP		1
ARA LAZARO Pilar	Generalitat Valenciana	SP	ara_pil@gva.es	1 ; 2 ; 3 ; 4 ; 5
ARNAUTENA Elena	Generalitat Valenciana	SP	earnaute@vaersa.com	1 ; 3 ; 4
BALLESTA GOMEZ Maria Luisa	Région de Murcie	SP		1
BARBERIO Roberto	Agriculteur	IT		3
BEC François	Parc naturel régional du Luberon	FR	francois.bec@parcduluberon.fr	2 ; 3
BELLACIECO Enza		IT		3
BELLINI Filippo	Province de Taranto	IT	filippo.bellini@provincia.ta.it	1 ; 2 ; 3
BLASCO Verónica	Generalitat Valenciana	SP	Parque_puebladesanmiguel@gva.es	4
BOCCUNI Monica	Police Provinciale de Taranto	IT		3
BONNIER Jean	AIFM	FR	jean.bonnier@aifm.org	1 ; 2 ; 3 ; 4 ; 5
BOSQUET Wilma	Parc naturel régional des Alpilles	FR		2
BOTELLA Miguel	Generalitat Valenciana	SP	miguelbotella@vaersa.com	1
BOURDENET Philippe	ONF	FR	philippe.bourdenet@onf.fr	1 ; 2 ; 3 ; 4 ; 5 ; 6
BOURLON Sophie	Parc naturel régional du Luberon	FR		6
BUGALHO Miguel	WWF Portugal	PT	migbugalho@isa.utl.pt	2 ; 3 ; 4 ; 5 ; 6
BULGARINI Fabrizio	WWF Italie	IT		6
BURGUI J.M.	VAERSA	SP		4
CABEZAS CEREZO Juan de Dios	Région de Murcie	SP	juand.cabezas@carm.es	1
CABRERA CLEMENTE Juan	Région de Murcie	SP		1

CALDERON Cristina	VAERSA	SP	calderon@vaersa.org	4
CARO Carmen	PROFOMUR	SP		1
CASES Antonio José	Maire de Vall de Almonacid, Directeur PN Serra d'Espadà	SP	cases_ant@gva.es	4
CASTAN Alain	ONF	FR		5
CASTRO REGO Francisco	AIFM	FR	fcastrorrego2@gmail.com	1
CASULLI Valeria		IT		3 ; 5 ; 6
CELLIKOL Turgut		TR		3
CHAKROUN Mohamed Larbi	AIFM	FR	l.chakroun@gnet.tn	1
CHAMON FIJEZ Miguel	Région de Murcie	SP		1
CLIMENT VALIENTE Maria Angeles	Région de Murcie	SP		1
CROCHARD Thomas	ONF	FR		5
DE BARBERIN Noëlle		FR		6
DE BARBERIN Patrick		FR		6
DELAPRISON Olivier	ONF	FR		5
DE LLAGO Francisco	Generalitat Valenciana	SP		4
DE VANNA Joaquina	Université de Bari	IT		5
DIVOL Raymond	Parc naturel régional des Alpilles (Mairie d'Eygalières)	FR		2
DOMINGUEZ Marc	ONF	FR		2 ; 5
DUHEN François		FR		6
DUHEN Louis-Michel	Centre régional de la propriété forestière PACA	FR	louis-michel.duhen@crpf.fr	1 ; 2 ; 3 ; 4 ; 5 ; 6
DU LAC Jeanne		FR		6
FERNANDEZ ABELLAN Pablo	Région de Murcie	SP		1
FERNANDEZ Fernando	Generalitat Valenciana	SP		4
FLORES ALBACETE Francisco	Région de Murcie	SP	francisco.flores@carm.es	1 ; 2 ; 3 ; 4
FORNAZAR Ana	AIFM	FR	anaf@sumins.hr	1 ; 3
FOSSOY Gaëlle	AIFM	FR	gaelle.fossoy@aifm.org	1 ; 2 ; 3 ; 4
GARCIA LORENZO Rafael	Région de Murcie	SP		1
GARZA MORELL Matias	Région de Murcie	SP		1
GASC David	AIFM	FR	david.gasc@aifm.org	1 ; 2 ; 3 ; 4 ; 5 ; 6
GESLIN Laurent	PNR des Alpilles, Municipalité des Mas-Blanc-des-Alpilles	FR		2 ; 4
GIORGIO Giorgio de	Police Provinciale de Taranto	IT		3
GRECO Roberto	For.Rest.Med	IT	r.greco@forrestmed.com	2 ; 3 ; 4 ; 5 ; 6
GUILLAMON CANO Concepción	Région de Murcie	SP		1
HERRERO Manuel	Generalitat Valenciana	SP		4

Participant	Organization	Country	Email	Seminars
JAULMES Samuel	Parc naturel régional des Alpilles	FR	s.jaulmes@parc-alpilles.fr	1; 2; 3; 4; 5
JEAN Alain	Groupeement d'intérêt cynégétique du Mont Ventoux	FR		5
JENSEL Eric	ONF	FR		5
JORDÁN Manuel	ACREBO (Asociación Cultural para la recuperación del Bosque)	SP		4
KMIEC Lionel	ONF	FR		2
KOUKI Hmaïed	AIFM	FR	koukihmaied@yahoo.fr	1
LACARBONARA Francesco	Police Provinciale de Taranto	IT		3
LAHIGUERA Alberto	VAERSA	SP		4
LARROQUE Benoît	ONF	FR		6
LAZARO Juan Manuel	VAERSA	SP		4
LEVRAUD Catherine	Parc naturel régional des Alpilles (Région PACA)	FR	c.levraud@parc-alpilles.fr	1; 2
LOPEZ Cristina	Région de Murcie	SP		2
LORETO MONTEIRO Maria	ISA/CEABN Portugal	PT	mloretomonteiro@gmail.com	4
LUPOLI Anna	For. Rest. Med, université de Bari	IT		3
MANUEL GARCIA José Luis	Région de Murcie	SP		1
MARCONI Francesco	WWF Oasi	IT		
MARTINEZ GARCIA Juan Antonio	Région de Murcie	SP		1
MARTINEZ Gilles	Parc naturel régional of Luberon (CRPF PACA)	FR	gilles.martinez@parcduluberon.fr	1; 2; 3; 4; 5
MATTHIEU Jean-Pierre	Association des parcs	FR		2
MOLINA Juan Ramon	Euro Vértice	SP		4
MONACO Antonio	Responsable du bureau des Parcs	IT		3
MONEDERO Jesús	Generalitat Valenciana	SP		4
MONTGOLFIER Annick (de)		FR		6
MONTGOLFIER Jean (de)	AIFM	FR	jeandemontgolfier@laposte.net	1; 2; 3; 4; 5; 6
MORENO MARTIN Raquel	VAERSA	SP	Raquel.moreno@vaersa.org	3; 4; 5; 6
MORRONE Ignazio		IT		3
MUNAT BELLEON Patrocina	Région de Murcie	SP		1
NAVARRO Francisco	VAERSA	SP	francisco.navarro@vaersa.com	1; 3; 4; 5; 6
NOC Benjamin	Parc naturel régional des Alpilles	FR	b.noc@parc-alpilles.fr	2; 3; 5
PAULIS Giovanni	WWF Oasi	IT		6
PENET Yves	ONF	FR		5
PERRAUD Ludovic	Provence Forêt Cooperative	FR		2
PIRASTRU Jean-Michel	Parc naturel régional des Alpilles	FR	jm.pirastru@parc-alpilles.fr	1; 2; 5; 6
PORRAS SANCHEZ Rosario	Région de Murcie	SP		1
PROTA Antonio	Farmer	IT		3

PROVENCIO RUIZ Filo	EcoEspaña S.L	SP		1
RAGUSO Antonio	Province of Taranto	IT		3; 5; 6
RAMÍREZ Carlos Miguel	Municipalité de Puebla de San Miguel	SP		4
RAMÍREZ Inmaculada	Région de Murcie	SP		1
REVERTE GARCIA Elvira	Région de Murcie	SP		1
RINALDI Nicola	Police Provinciale de Taranto	IT		3
RITAN Carine	Parc naturel régional des Alpilles	FR	c.ritan@parc-alpilles.fr	2
ROCHA Pedro	Instituto de Conservação da Natureza e da biodiversidade	PT	rochap@icnb.pt	3; 4
ROLDÁN Manuela	Generalitat Valenciana	SP		4
ROLLAND Robin	DREAL PACA	FR	robin.rolland@developpement-durable.gouv.fr	2
RUGGIERI Antonio	Province de Taranto	IT	antonioruggierizo05@libero.it	1; 2
RUGGIERI Daniela	Police Provinciale de Taranto	IT		3
SAIZ Carmen	Generalitat Valenciana	SP		4
SALVAUDON Aline	Parc naturel régional of Luberon	FR	aline.salvaudon@parcduluberon.fr	1; 2; 4; 5; 6
SANTAGADA Francesca	Police Provinciale de Taranto	IT		3
SAPINA Gracia	VAERSA	SP	gsapinya@vaersa.org	4
SAURA MORENO Maria José	Région de Murcie	SP		1
SELVA Jesús	VAERSA	SP	jselvase@vaersa.com	4
SEVEN Daniel	ONF	FR	daniel.seven@onf.fr	1; 2; 3; 4; 5; 6
SOLANA Alberto	Generalitat Valenciana	SP		4
SORIANO Jose Luis	VAERSA	SP		4
SPINA Cosimo		IT		3
SUÁREZ Jorge	Generalitat Valenciana	SP	suarez_jor@gva.es	1; 2; 4; 5; 6
TARTARINO Patrizia	For. Rest. Med, University of Bari	IT	patrizia.tartarino@agr.uniba.it	1; 2; 3; 4; 5; 6
TEOFILI Corrado	WWF MedPo	IT	c.teofili@wwf.it	1; 2; 3; 5; 6
TEYSEDDRE Olivier	ONF	FR	olivier.teyessedre@onf.fr	2; 5
TRESMONTANT David	ONF	FR	david.tresmontant@onf.fr	2
URBANO José	Generalitat Valenciana	SP		4
VALLAURI Daniel	WWF France	FR	dvalauri@wwf.fr	4; 5
VELAMAZAN ROS Mario	Région de Murcie	SP	mario.velamazan@car.m.es	1; 2; 3; 4; 5; 6
VELASCO Luis	Generalitat Valenciana	SP		4
VENTIMIGLIA Marzia	WWF MedPo	IT	mventimiglia@wwfmedpo.org	1; 3; 4; 5; 6
VICTORIA Antonio	Région de Murcie	SP	antonio.victoriaz@car.m.es	1
VIESTI Angelo	Police Provinciale de Taranto	IT		3
VIGNON Claire	ONF	FR		5
VILLERMY Jean-Louis	PNR des Alpilles, Municipalité de Mas-Blanc-des-Alpilles	FR		2

# Quali Gouv

This publication was realised with support from:



Projet cofinancé par le Fonds Européen de Développement Régional (FEDER)

Project cofinanced by the European Regional Development Fund (ERDF)



Partnership of the project:



ASSOCIATION  
INTERNATIONALE  
FORETS  
MEDITERRANEENNES



Marseille, February 2012

**INTERNATIONAL ASSOCIATION FOR MEDITERRANEAN FORESTS**

14, rue Louis Astouin 13002 Marseille - France - Tel. : +33 (0)4 91 90 76 70 - Fax : +33 (0)4 91 90 71 62 - Email : [info@aifm.org](mailto:info@aifm.org) - Website : [www.aifm.org](http://www.aifm.org)