



## *Silva Mediterranea Newsletter n°2 : Editorial on Silva Mediterranea*

The Mediterranean is considered as one of the regions in the world where the concept of sustainable development is the most meaningful because of the vulnerability of its ecosystems which are already affected by degradation. It is also a region where regional cooperation (North-South, North-North and South - South) is particularly relevant today to overcome the challenge of adapting to climate change. Indeed, this region which is already highly vulnerable to natural disasters (*earthquakes, volcanic activity, floods, drought and forest fires*) will also have to adapt to the exceptional effects of climate change (*increase of temperature - low rainfall - increased frequency of summer droughts ...*) while at the same time its population will increase very significantly (*see State of the Environment and Development in the Mediterranean - Plan Bleu - 2009*). In this context forest landscapes (about 100 million hectares in the Mediterranean) along with the wide range of goods and services they provide to local populations will be particularly affected by these changes.

If today the contribution of forest ecosystems to the fight against poverty, the promotion of socio-economic development of rural areas, food security and the conservation of many other environmental services (*biodiversity, landscape quality, preservation of water resources, fight against erosion and land degradation ...*) is considered and recognized by all as global or regional public goods, it is clear that the management of forest resources in the Mediterranean is insufficiently taken into account in national policy priorities of land use and territorial development.

To address all the challenges ahead for 2050 (*increased risk of forest fires in the Mediterranean, desertification in the North and the South with consequences such as a probable increase in land and resource user conflicts and migration with sometimes difficulties of management by states, degradation of water quality and soil with consequences for food security in developing countries of the Mediterranean ...*), it is essential that today sustainable forest management of forests is considered and integrated in each of the different sectoral policies (*agriculture, water, energy, land use ...*) and that local populations, the main actors involved in adaptation to climate change, are more involved in defining and implementing national forest policies.

In this context, regional cooperation developed through the Committee of the FAO *Silva Mediterranea* is more relevant than ever today and should be enhanced significantly within the dynamic *Silva Mediterranea* and through collaboration among different working groups.

Moreover this regional cooperation should be expanded through the mobilization of a broader platform of stakeholders and partners active in the forest sector (*Plan Bleu, EFIMED, WWF Mediterranean Program and its network in the region, AIFM, IUCN, CIHEAM, MAB UNESCO, Conservation International ...*) to initiate a genuine regional partnership for the conservation, sustainable management and restoration of forest ecosystems around the Mediterranean.

It is in this spirit that the Forestry Department of FAO and several partners (GTZ, Plan Bleu, France, EFIMED, CIHEAM, WWF, IUCN ...) have already decided to take action to strengthen the regional process with the member countries of *Silva Mediterranea*.

We wish every success to this new dynamic that could contribute at its modest level to the success of the Action Plan for the Mediterranean under the Barcelona process and the initiative of the Heads of State of the region under the Union for the Mediterranean.

*Moujahed ACHOURI*

### **News of *Silva Mediterranea* partners:**

**The State of the Environment and Development in the Mediterranean in 2009** was presented November 3, 2009 at the 16th meeting of Parties to the Barcelona Convention. This publication of the UNEP / MAP - Blue Plan provides an excellent vision of sustainable development issues in the Mediterranean in a changing climate. **One chapter is devoted to natural terrestrial ecosystems.**

For more information: <http://www.planbleu.org/actualite/fr/>

**Research Agenda for Mediterranean Forests** is available on the website EFIMED. Developed with a highly participatory process involving countries bordering the Mediterranean, this agenda of Mediterranean Forestry Research sets priorities for the period 2010 to 2020. **Its effective implementation will determine the capacity of the region to overcome the challenge of adapting its forested ecosystems to climate change.**

For more information: <http://www.efimed.efi.int/portal/research/>

## State of the World's Forest Genetic Resources

**Genetic diversity** provides the fundamental basis for the evolution of forest tree species and for their adaptation to changes. Conserving forest genetic resources is therefore vital, as they are a unique and irreplaceable resource for the future. Forest genetic resources management can be effective only if treated as an integral element of overall sustainable forest management. **Conservation concerns should be integrated into broader national and local development programmes, such as national forest programmes**, rural development plans and poverty reduction strategies, which promote cooperation among sectors.

However, **lack of information limits the capacity of countries and the international community to integrate forest genetic resources management into overall cross-cutting policies**. It is recognized that reliable general data on forest status and trends is of great importance to the efficient management of forest genetic resources. Forest-related information, however, largely refers to forest resources in general rather than to forest diversity and variation. Availability of specific information on status and trends in forest genetic resources is today woefully inadequate, although some progress has been made at the national and sub-regional levels in the past decade.



At its Eleventh Session in June 2007, the Commission on Genetic Resources for Food and Agriculture (CGRFA) acknowledged the urgency to conserve and sustainably utilize Forest Genetic Resources (FGR).

The Commission requested that a *State of the World's Forest Genetic Resources* report be prepared and presented in 2013.

The report on the *State of the World's Forest Genetic Resources* will be prepared through a country-driven approach based on information provided by countries and thematic studies. The process would build upon relevant initiatives and experience, including seven sub-regional workshops organized by FAO over

the past ten years, for which 71 national reports were prepared, and the **global FAO Information System on Forest Genetic Resources (REFORGEN) database based on information provided by member countries**.

The primary source of data and information for the preparation of *The State of the World's Forest Genetic Resources* will be **Country Reports on Forest Genetic Resources**. The Country Report preparatory process will focus on the review of existing data and information and the identification of gaps and needs. Detailed guidelines for Country Reports were prepared to assist countries to prepare for their Country Reports, as strategic assessments of the status and trends of forest genetic resources, as well as the state of management capacities and needs. **In this way, Country Reports will serve both as a strategic tool for national efforts to enhance the use, development and conservation of forest genetic resources**, as well as the basis for preparing the global report on The State of the World's Forest Genetic Resources.

Pour de plus amples renseignements se référer à <http://www.fao.org/forestry/fgr/en/>

Oudara SOUVANNAVONG

### Regional Workshop : Mediterranean Forest Genetic Resources and Climate Change. (CIHEAM of Chania – Crete – November 24 to 26, 2009).

The objectives of this regional workshop, organized both by FAO and [CIHEAM](#), in collaboration with EFIMED, [EUFORGEN](#) / Bioversity, [IUFRO](#) and the Ministry of Rural Development and Food (Greece), were:

1. To consider expected climate changes and their impacts on forest ecosystems, discuss the role of forest genetic resources and diversity in adaptation to climate change, with special reference to the Mediterranean region (*where woodlands and rangelands are considered together with forest ecosystems*);
2. To consider the incorporation of conservation and management of forest genetic resources concerns into national strategies to address climate change;

3. To identify research and training needs in forest genetic resources management in a context of climate change in the Mediterranean region;
4. To assess the availability of forest genetic resources information, and prepare for Mediterranean contribution to the first State of the World's Forest Genetic Resources report.



During this workshop a presentation of *Silva Mediterranea* programme on Forest Genetic Resources and Climate Change (2010-2013) was made by Fulvio DUCCI (Researcher at Centro di Ricerca per la Selvicoltura (CRA) AREZZO – Italie), team leader of the *Silva Mediterranea* Forest Genetic Resources Working Group (For more information, please refer to <http://www.fao.org/forestry/silvamed>).

Key issues concerning Forest Genetic Resources and adaptation to Climate Change in Mediterranean Region were identified and approved by experts members of *Silva Mediterranea* Working Group 4. **Several recommendations have been formulated to integrate Forest Genetic Resources issues in National Strategies for adaptation to Climate Change** (See frames in this Newsletter n° 2).

During the second day of the workshop, information about the World State of Forest Genetic Resources process was provided to Mediterranean Forest Genetic resources experts (For more

information, please refer to <http://www.fao.org/forestry/fg/en/> ;

**FAO-CIHEAM Regional workshop  
Chania (Greece), 24-26 November 2009**

**Mediterranean Forest Genetic  
Resources and Climate Change**

**KEY MESSAGES AND RECOMMENDATIONS OF EXPERTS FOR THE MEDITERRANEAN**

**Mediterranean forests require special attention because:**

- they provide crucial basic resources as well as **high-value** but non-market services ;
- they represent a unique world natural heritage in terms of **biodiversity**, including **forest genetic resources** ;
- their conservation and management affect the availability of **soil** and **water** resources ;
- their future is **seriously endangered** by climate and land-use changes ;

**Key messages related to climate change :**

1. Mediterranean region is very sensitive to climate change, which is having rapid and severe impacts ;
2. Climate change is multi-factorial, there is a need to consider steady changes as well as the impacts of extreme events ;
3. Some Mediterranean forests can become net sources of carbon, which limits perspectives for Climate Change mitigation ;
4. Consider the specificity of Mediterranean conditions regarding water and forests interactions: the survival of Mediterranean forests is at stake ;
5. Considering that water is the main limiting factor in the region, the water balance for providing different forest goods and services should be considered: “*Water Accounting*” ;
6. Optimizing forest management (spatially and temporally) regarding the trade-offs among water, soil protection and other goods and services is required ;
7. Strategic research priorities for Mediterranean forests have been identified and jointly adopted in the Mediterranean Forest Research Agenda 2010-2020-MFRA ;

**Key messages related to genetic diversity**

1. Genetic diversity is a key component involved in evolutionary processes for adaptation to climate change ;
2. Information on forest genetic resources is needed for preparation and implementation of conservation strategies at national and regional levels ;
3. Projections of future species distribution in relation to climate and its change (envelop models) should be improved by integrating the evolutionary processes based on genetic diversity ;
4. Most Mediterranean tree populations have a very high genetic diversity: hotspots ;
5. Human actions can impact genetic diversity and adaptation/adaptability ;
6. The selection of populations now should consider the adaptability to future conditions ;
7. Biotic interactions, which can have severe impacts, are hardly predictable ;

## KEY MESSAGES AND RECOMMENDATIONS OF EXPERTS FOR THE MEDITERRANEAN

### A new paradigm of Mediterranean forest management:

1. Move from “**carbocentric**” centered approaches to **water-based** forest management to ensure multifunctional Mediterranean forests ;
2. Integrating knowledge from genetics, eco-physiology and forest dynamics to develop new decision support models and tools that can address the specificity of Mediterranean forests and forestry ;
3. Combining monitoring, research and forest management: basis for adaptive management ;

**This new paradigm requires multidisciplinary research and innovative capacity building as identified in the Mediterranean Forest Research Agenda 2010 – 2020 (MFRA).**

### Recommendations for managers

1. Managing forests must be based on the understanding of processes and the specific environmental constraints of the region;
2. Maintaining genetic diversity over the long term (keeping options open) ;
3. Fostering evolutionary processes (acting on natural regeneration and plantations to accelerate them) ;
4. Integrate the genetic dimension in forest management practices ;
5. Coppice forests might be at risk due to climate change and their specific water-carbon balance: need for conversion to more resilient structures should be considered when possible ;

### Recommendations for policy makers:

1. Incorporate the management of forest genetic resources into National Forest Programmes and National Adaptation Strategies to Climate Change ;
2. Review existing guidelines for transferring reproductive material ;
3. Maintain and establish networks for long-term multidisciplinary experiments (including genetics, ecophysiology and forest dynamics) to analyze responses to changing environmental conditions ;
4. Building up and sharing scientific capacities ;
5. Enhance International cooperation based on exiting [networks](#) and organizations like [CIHEAM](#), [FAO Silva Med.](#), [EFIMED](#), [Bioversity](#), [WWF](#), [IUCN](#), [Plan bleu](#), [AIFM](#), including north-south and south-south cooperation ;

### In view of the future expansion of Mediterranean-like conditions:

1. Mediterranean forest genetic resources can be used for other regions ;
2. Mediterranean forest ecosystems and management can be a model situation ;

## Side Event “ Arid Zones” during the XIII<sup>ième</sup> World Forestry Congress

At the XIII World Forestry Congress, a side event on “**Arid Zone Forest’s contributions to biodiversity conservation, combating desertification and sustainable livelihoods : the Global Challenge in a Changing World**” was organized by FAO in collaboration with partners from the Mediterranean, African region and international organizations including the Africa Union Commission, the Great Green Wall for the Sahara and Sahel initiative/ Senegal, NGARA (Network of Gum Arabic and Resins in Africa), IUCN Mediterranean Cooperation Centre, Mediterranean regional office of the EFIMED, UNEP-WCMC, CBD Secretariat, the GM/UNCCD ad GTZ.

The side event gathered more than 120 participants and aimed at:

- Sharing information on the vulnerability of dryland forests landscapes to global change (environmental and socio-economic challenges) and the social, environmental and economic implications of continued dryland forest degradation and loss ;
- Share information about needs and opportunities to build and/or enhance resilience of drylands forest socio-ecosystems ;
- share lessons and promote networking among current initiatives addressing environmental and socio-economic challenges in dryland forest landscapes ;
- Brief presentations and statements were presented by key note speakers and were followed by discussion.

Along with the side event, a background paper was prepared by FAO including inputs from partner organizations entitled **“Forests in Arid Zones: Issues, priorities and ideas for joint action”**. This paper was prepared for facilitating discussion during the side event as well putting the first step through which FAO would like to invite all organizations and partners to further increase collaboration and to help set the basis for future joint action.

For further information, please contact Nora BERRAHMOUNI at : [nora.berrahmouni@fao.org](mailto:nora.berrahmouni@fao.org)

## Cooperation with *Silva Mediterranea* for Sustainable Management of Forests and related Biodiversity in the context of Climate Change in the Mediterranean North Africa and Middle East



Food and Agriculture Organization of the United Nations (FAO) in partnership with Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) organized a workshop in Rabat, Morocco, in July 8-9 2009 with the support of the High Commissariat of Water and Forests and combating Desertification (HCEFLCD, Morocco). The main objectives of the workshop were to identify crucial needs for external support to facilitate adaptation of forest policies and sustaining forest-related ecosystems services (including biodiversity) in the North African and Middle East Mediterranean region in the context of climate change.

A total of 22 persons participated in the workshop, representing three countries of the southern Mediterranean region (Morocco, Tunisia and Turkey), two European countries (Italy and Germany), four regional institutions (IUCN, Plan Bleu, EFIMed and *Silva Mediterranea*) and FAO.

The workshop produced concrete proposals concerning:

- The needs for external support for the necessary adaptation of forest management at technical, institutional, socio-economic and policy level and at the level of financial facilities through capacity building, regional exchange of experience and information
- The desirable contributions to this process through *Silva Mediterranea* ;
- Ways and means to associate regional and international partners within the adaptation process and mobilize their technical and financial commitment for the future (2010 – 2013);
- The contribution to policy changes through the envisaged future regional GTZ-project named “Sustainable Management of Mediterranean Forests and related Biodiversity in the context of Climate Change” during the period 2010 – 2013 ;

To know more refer to *Silva Mediterranea* Website: <http://www.fao.org/forestry/silvamed/en/> or wait for the **thematic dossier in the next *Silva Mediterranea* Newsletter n°3 (March 2009) which will be entirely dedicated to Mediterranean Forests and Climate Change** (Main outcomes relevant to the Mediterranean forests from Copenhagen – News regarding the future GTZ/FAO *Silva Mediterranea* project “Sustainable Management of Mediterranean Forests and related Biodiversity in the context of Climate Change” during the period 2010 – 2013 – An example of a Forestry Project in Arid Zones and the Clean Development Mechanism of Kyoto Protocol).

### Events / Regional Forestry Commissions in the first half of 2010:

**17th Session of the Committee on Forestry and Wildlife for Africa - February 22 to 26, 2010 Brazzaville - Congo** - For more information: <http://www.fao.org/forestry/afwc/en/>

**19th Session of the Committee on Forestry in the Middle East - April 5 to 9, 2010 - Hammamet - Tunisia**  
A point on new network “forest fires in the Middle East” - For more information: <http://www.fao.org/forestry/31112/en/>

**35th Session of the European Forestry Commission - April 27 to 30, 2010 - Lisbon - Portugal**  
One point of discussion *Silva Mediterranea* to the agenda - For more information: <http://www.fao.org/forestry/efc/en/>

**Conference on forest ecosystem genomics and adaptation - Date and venue: 9 - 11 June 2010, San Lorenzo de El Escorial (Madrid), Spain** - Website: [www.ecosystemgenomics2010.fgua.es](http://www.ecosystemgenomics2010.fgua.es)

**Special Session of the Expanded Executive Committee *Silva Mediterranea* – March/April 2010** – Location to be announced in 2010 - For more information: <http://www.fao.org/forestry/silvamed/en/>

**Annual EFIMED Meeting and Conference “Knowledge base management of Mediterranean forests under climate driven risks: the ways ahead”**- April 14 to 16, 2010 - Antalya - Turkey - For more information: <http://www.efimed.efi.int/portal/events/>

**IUFRO Meeting on global change and Mediterranean Pines : alternatives for management - 10 to 12 February 2010**  
Valladolid – Spain - For more information : <http://www.iufro2010.es/>