



Newsletter n°4: Editorial of *Silva Mediterranea*

All over the world, fire is used as a tool to control and to define the type of vegetation cover. But this can lead to problems in the form of forest fires both in the Mediterranean region and in other countries which share its climatic characteristics such as Australia, Chile, the United States of America and some areas of Asia and Africa.

In the light of the scientific world's diagnosis of new climatic scenarios, managers are faced with a general trend of increased burnt areas and a rise in the frequency, intensity and severity of fires, as well as a prolonged risk seasons.

Owing to the transboundary nature of forest fires, the planning for their prevention should be addressed from a pan-European perspective. As the "Green Book on Forest Protection and Forest Information in the European Union" (European Commission) notes, significant prevention efforts made by the EU and its member states have been focused on training, investigation, awareness and structural prevention. However, these efforts need to be intensified to deal with the consequences of climate change. **In this context the correlation between active forest management and reduction of fires is crucial.**

To raise awareness of this problem at international level, a workshop was co-organised on "The Assessment of Forest Fires Risks and Innovative Strategies for Fire Prevention", by the Hellenic Ministry for the Environment, Energy and Climate Change; the Republic of Cyprus, Department of Forests; FOREST EUROPE (MCPFE); the Union of South European Foresters (USSE); *Silva Mediterranea* Committee and the Team of Specialists on Forest Fires UNECE/FAO. This workshop took place in the context of the Pan European Work Programme (follow-up of the 5th Ministerial Conference on the Protection of Forests in Europe, held in Warsaw during 2007). The workshop's objectives were the review of current prevention systems in European countries, the identification of new strategies and policies needed in this area and **the elaboration of conclusions and recommendations on prevention of forest fires.**

After several work sessions, recommendations relating to different fields of action were adopted (see article on the Rhodes Workshop). **Of these, the most significant were those on the establishment of a European Sustainable Fund for Forest Fire Prevention, the presence of awareness and education on forests in all the educational programmes as well as the promotion of the economic dimension of forests.**

The workshop on prevention took place before the meeting of the Group of Experts in Forest Fires (European Commission), in which was boosted the coordination and

joint work between the Group of Experts and the Working Group on Forest Fires of *Silva Mediterranea*.

For the working group of *Silva Mediterranea*, Spain will seek to take advantage of its coordinating role to meet the new challenges of climate change that we face in the future, thanks to a relevant planning prevention Wildfire.

Rafael GÓMEZ del ALAMO
Coordinator of Working Group
on Forest Fires of *Silva Mediterranea*
Head of the Spanish Forest Fire Service
Ministry of the Environment and
Rural and Marine Affairs

News of *Silva Mediterranea* partners:

An inter-academic conference was organized in Alexandria (PARMENIDES III) on 22-24 June 2010. One session was focused on the biodiversity of Mediterranean trees and forest landscapes. Main conclusions and recommendations of this PARMENIDES Conference are available on the Website of *Silva Mediterranea* at: <http://www.fao.org/forestry/19605-1-0.pdf>

For further information: <http://g-i-d.org>

INRGREF, Tunisia, will organize its 15th scientific days on the theme: "Valorization of Non-Wood Forest Products" - 28-29 September 2010.

For further information: www.iresa.agrinet.tn.

GTZ will organize the Operational Planning Workshop on "Adapting forest policy conditions to climate change in the MENA Region"- Istanbul - Turkey - 28 September 2010 to 01 October 2010

For further information: <http://www.fao.org/forestry/silvamed/en/>

FAO *Silva Mediterranea* will organize during COFO (4 to 8 October 2010) a side event on Mediterranean Forests issues the 7th October 2010. After this side event a meeting of *Silva Mediterranea* member States will be organized to share on main issues for 2011 with representatives of *Silva Mediterranea*.

During the same COFO a whole morning session in the official program will be dedicated to Fire and Climate change on the 5th October 2010

For further information on COFO2010 and these World Forest Week events: <http://www.fao.org/forestry/cofo/64665/en/>

MEDPINE 4, the 4th International Conference on Mediterranean Pines will be held in Avignon, France, on June 6-10, 2011. You can find more information at: <https://colloque.inra.fr/medpine4>

Main outcomes of the workshop organized in Rhodes on “Assessment of Forest Fire Risks and Innovative Strategies for Fire Prevention” (5 – 7 May 2010)

Organizers: Hellenic Ministry for the Environment, Energy and Climate Change / Republic of Cyprus, Department of Forests / [Ministerial Conference on the Protection of Forests in Europe](#) (FOREST EUROPE) United Nations Economic Commission for Europe (UNECE) / Food and Agriculture Organization of the United Nations (FAO) / Union of South European Foresters (USSE) / *Silva Mediterranea* Committee and the Team of Specialists on Forest Fires UNECE/FAO

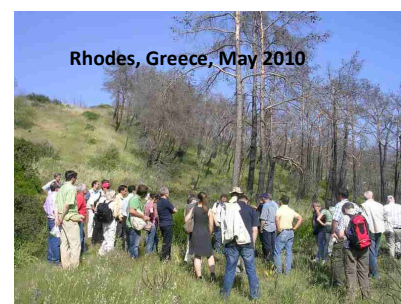
Objectives:

- ⇒ To review the current national fire prevention systems in European Countries;
- ⇒ To identify innovative strategies, best available practices and possible policy instruments for Forest Fire prevention in Europe;
- ⇒ To develop policy conclusions and recommendations in relation to forest fire prevention in Europe and in the Mediterranean.

Main recommendations of the workshop held in Rhodes (May 2010) on Prevention of Forest Fires:

I) At the global level:

1. Develop a common understanding of prevention of Forest Fires;
2. **Ask Forest Europe (in cooperation with FAO / UNECE) to develop a template and guidelines for Forest Fire Prevention Plans** to be used by national (and regional) governments;
3. **Ask Forest Europe to include in the 6th MCPFE (Ministerial Conference in June 2011) to put an emphasis on forest fire prevention;**
4. Use all relevant events (e.g. COFO in October 2010, Mediterranean Forest Week in April 2011, Oslo Ministerial Conference in June 2011) to draw attention to preventive measures in particular in the context of the International Year of Forests (2011);



II) At the European Union / *Silva Mediterranea* levels:



1. Disseminate and share experiences;
2. Build up and replicate best practices;
3. **Establish a sustainable and clear funding mechanism** and make sure that funding reaches local stakeholders in forest fires risky zones;
4. **Evaluate the effects and the efficiency of prevention of forest fires;**
5. **Improve cooperation between the different bodies/working groups** (*Silva mediterranea* WG1, UNECE Team of Specialists and EFFIS);

III) At the national level:

1. **Ensure that forest fire prevention is an integral part of sustainable forest management coherent with all relevant policies** and integrated in adaptation strategies to climate change;
2. **Prediction of futures forest fire risks (climate change, social change...)** so as to define sustainable Prevention Policies, Action Plans and relevant budgets;
3. **Raising awareness : education on forests and forestry should be included in all national education programmes;**
4. **Promoting the economic dimensions of forest fire management** (prevention, suppression and rehabilitation) and the efficiency of prevention plans;
5. **Encourage all countries to provide data on forest fires and forest fire prevention** (EFFIS and other relevant institution in charge of Information Systems).



For further information please contact Inazio MARTINEZ DE ARANO at USSE : imarano@usse.es or Berit Hauger LINDSTAD at Forest Europe Liaison Unit (Oslo): bhl@mcpfe.org

Christophe BESACIER/Pieter VAN LIEROP

Extension of the risk of forest fire related to climate change: an example in the Mediterranean

During the Rhodes workshop, a presentation on the methodology of the study on the extension of the risk of forest fires in France in 2030 and 2050 related to climate change has been made by the French representative M. Alain CHAUDRON.

This study was conducted at the initiative of the French Ministers of Agriculture, Ecology and Interior. They asked their general inspection unit to undertake this mission in order to assess the effects of climate change on public policy on prevention of fire risks in French forests.

This study was conducted under four main topics:

1) The evolution of climatic factors

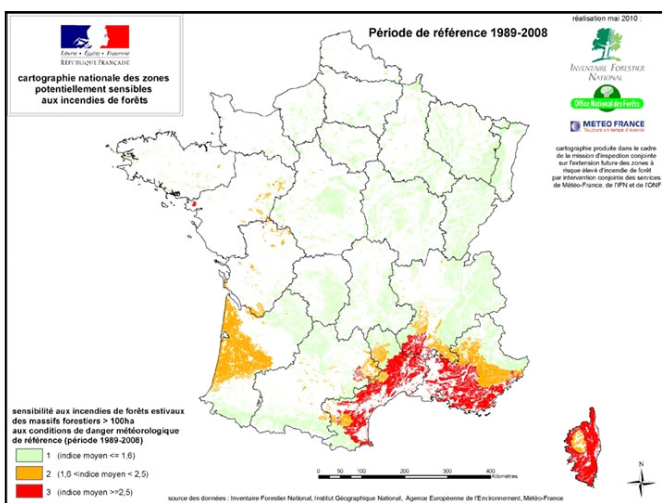
The study was based on analysis of the Forest Weather Index (FWI) commonly used in Europe (see for example the website of the European Commission EFFIS). Meteo-France has calculated the FWI on a daily 8km x 8km grid over the last 50 years. With this calibrated model, it was possible to project the value of the FWI 2010-2100, using three climate scenarios of the IPCC.

2) The sensitivity of vegetation and its overlap with climatic factors

The National Forestry Board (ONF) and the National Forest Inventory (IFN) have developed a sensitivity index of vegetation, especially based on a factor related to vegetation (Forest types, Bio-geographical regions, Altitude) and a factor related to the available water (soil, exposure, slope). By combining climatic data and vegetation data, the joint mission can then propose a national map of areas potentially sensitive to forest fires at different times.

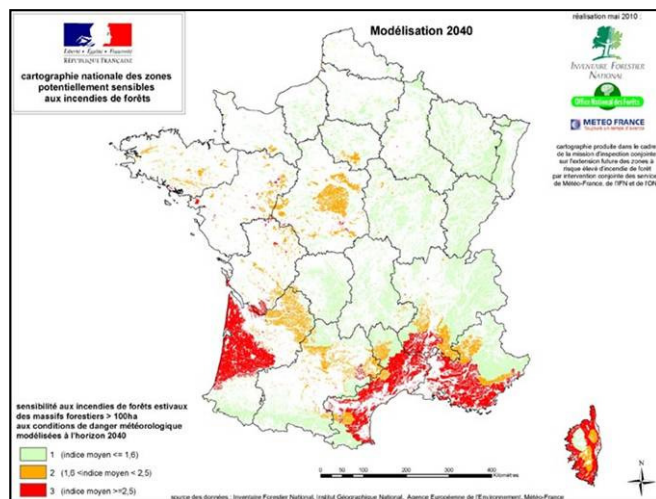
For example the three maps below show the sensitivity of summer forest fires forests over 100 ha.

Risks of forest fires for the reference period (1989-2008)

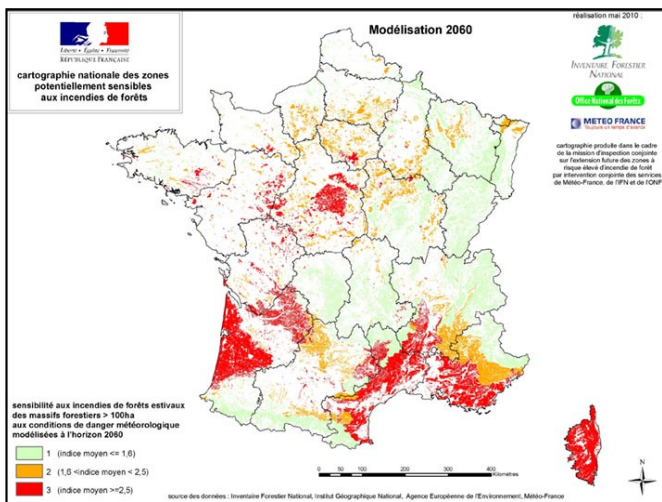


These maps are working documents, reproduced here for illustrative purposes only, the sole purpose of clarifying the method. They clearly show a strong and rapid expansion of sensitive areas in the coming decades: at maturity in 2050, half of the metropolitan forests will be affected by forest fire hazards.

Risks of forest fires for the year 2040



And risks of forest fires for the year 2060



3) The impacts on public policy in France

This part of the study is a contribution to the National Plan of Adaptation to Climate Change, currently being finalized. For planning policy, **the inter ministerial mission recommends to reduce and to deal with the Wildland-Urban Interface (WUI) to prohibit urban sprawl of natural areas, to preserve agricultural cuts, to design systems adapted to fight against fire and to promote self-protection of new construction.** In legislative terms, it proposes to make enforceable the departmental plans for the protection of forests against fires and to organize the compatibility with local development plans, which would inevitably lead to conflicts of interest.

For forest policy, in addition to the adaptation developed elsewhere (choice of species and provenances, adoption of more dynamic silvicultural models of Forestry), the zoning of forests where specific measures apply (Article L321.6 of the French Forestry Law) for example will have to be reviewed in the context of Climate Change.

4) The evaluation of costs and their evolution in the context of adaptation to Climate Change

First, the inter ministerial mission analyzed the current costs of policies to prevent and fight against forest fires in France, no easy task in a country where the decentralized local governments are free to govern themselves.

Thus, for the year 2008, the cost amounted to € 537 million, distributed as follows:

- ⇒ **1/3 for prevention and two thirds for fire- fighting.** The costs of reconstitution are not counted.
- ⇒ **36% for the state, 61% for local government** (mainly county fire services and emergency) **and less than 3% for private forest owners.**

The evolution of these costs and funding scenarios obviously depend on the risk level allowed, the means used and the choice of burden sharing between the state, communities and landowners. Thus, the extension of surfaces (of the order of + 30% by 2040) would result in additional costs, policies to prevent and control equivalent of about 20%.

In conclusion, the objective of this presentation was not to highlight the case of a particular country in the Mediterranean, but to highlight the issue of the evolution of the risk of forest fires in the context of climate change. France had the means to conduct a detailed heavy study over two years, with involvement of senior experts from three jurisdictions and three public institutions, **to prepare changes to public policies;** however, clearly, similar situations are faced in many countries. In countries affected by these developments it is better to anticipate and prepare to implement new preventive measures rather than waiting for the next disastrous summer. An original methodology has been developed. This is the first time - to our knowledge - that climatic data and vegetation data have been coupled on such a scale. This is why the presentation was made at the workshop of Rhodes under "innovative practices". **France is ready, once the final report has been published, to share the methodology and results with all *Silva Mediterranea* countries as well as interested European Union member states with the European Commission.**

For further information please contact: Alain CHAUDRON in charge of International Forestry Issues at the French Ministry of Food, Agriculture and Fisheries : alain.chaudron@agriculture.gouv.fr and Christian CHATRY in charge of this study in the general inspection of the French Ministry of Food, Agriculture and Fisheries : christian.chatry@agriculture.gouv.fr

Alain CHAUDRON/Christian CHATRY

Regional cooperation and financing: two key elements to prevent forest fires in the Mediterranean

Brussels, July 13th 2010: Co-chaired by **Member of the European Parliament (MEP) Theodoros Skylakakis and Gaston Franco** – respectively Chairs of the subgroups "Mediterranean" and "Forestry" of the European Parliament Intergroup "Climate Change, Biodiversity and Sustainable Development" - the meeting on "**Prevention of forest fires**" stressed how critical regional cooperation and financing prevention measures are. This event represents an essential contribution to the consultation launched by the European Commission on forest. «The forestry sector calls for an autonomous tool to finance forest fires prevention measures», claimed **M. Angelidis – DG IPOL, European Parliament.**

M. Pinaudeau from Private forest owners of Southern Europe (USSE) urged the European institutions to re-establish a financial regulation on forest management, focused on prevention of Forest Fires. He stated that protection can not be achieved without prevention and said that forest management is a prerequisite for prevention. **M. Clark representing DG ECHO, European Commission** informed that the Council will draw up conclusions end of this year on innovative solutions to financing prevention of disasters. The issue of insurance will be considered. **During this meeting, *Silva Mediterranea* Secretariat presented the main conclusions and recommendations of the Workshop organized in Rhodes (5th to 7th May 2010)** and, on the basis of the results of the study presented by France, stressed the importance of enhancing prevention of forest fires with the extension of forest fire risks in the context of Climate Change.

Christophe BESACIER Forestry Officer
Forestry Department - FAO - Rome – Italy

Extract from the newsletter of the Intergroup on Climate Change, Biodiversity and Sustainable Development



Adaptation to climate change and prevention of forest fires – Setting the right priorities **Theodoros SKYLAKAKIS** (Chair of the Mediterranean subgroup of the European Parliament Intergroup on Climate Change, Biodiversity and Sustainable Development)

Climate change is an uncontested reality and most of its consequences within the next few decades will occur no matter what we decide to do today to mitigate the problem of temperature rising. Therefore we need to develop strategies which will enable us to better combat the consequences of global warming which will increase over the next thirty years at least, while primarily affecting specific regions particularly vulnerable to climate change, such as Southern Europe. The European Union is currently articulating its strategy for adaptation to climate change with the first step being the White Paper on adaptation which was debated by the European Parliament in March 2010. It is important that within this strategy (which is the only tool we have to combat the consequences of climate change for the coming decades), the priorities are set correctly from the start. The reason for this is that not all climatic phenomena will appear at the same time frame and the time differences between them will be years rather than decades.

Europe has suffered from fires destroying more than 400 000 hectares of forest per year, in the last decades. The summer 2009 was once again marked by devastating wildfires across southern Europe, causing both human suffering and immense material and environmental damage. With fires occurring on this scale, especially in southern Europe, forests are unable to regenerate, and that has serious ecological consequences and economic and social effects. In addition to this, the unusual weather conditions experienced in 2007 led to the phenomenon of mega-fires, something which is likely to recur more often in years to come.

Taking these facts into consideration, the consequences of fires in Southern forests should be high-up in Europe's priorities to adapt to climate change. The first tool that the Commission should have in hand for combating forest fires is scientific knowledge. Therefore, it should take up the recommendation of the European Parliament to draw up research programmes to investigate the reaction of forests to higher levels of CO₂ and higher temperatures and drought and to draw up research programmes to develop new techniques for the forest management of affected ecosystems in view of the new circumstances. The Commission should also emphasize the regional consequences of climate change, which is an under-researched area in terms of the actual effects on the ground, which can vary within different geographical areas of Europe. **At the same time, we should make sure that for the next fiscal period there are enough resources for forest fires prevention, development of new types of forest management** and that the European Forest Fire Tactical Reserve continues its operation enhanced in terms of resources and capacity.

Theodoros SKYLAKAKIS

Member of the European Parliament

Chair of the Mediterranean subgroup of the Intergroup

Newsletter available on : <http://www.ebcd.org/ISDNewsletter.html>

The view of forest owners on forest fire prevention: a living territory is a landscape without ashes!

Sociologists warn us that the image that we citizens have of wild fires largely depends on how the media present them. Opinion polls repeatedly show that despite being considered one of the major environmental issues in the Mediterranean region, the underlying causes of major fires remain unknown to the general public. At the heart of this important social concern and the ignorance of the territorial dynamics related to fire, a proper use of information is essential, and necessary for an informed debate. Directing our attention to isolated parts of a complex chain where everything is inter-linked will not only bring us to a wrong diagnosis, but will also generate social confusion. **Unfortunately, and as forestry professionals regularly complain, forests are only noticed when they burn. The causes often have to do with the abandonment of grazing management, agriculture and forestry in a territory, when they all cease to be profitable, which in turn generates an increase in the fuel level in this territory.** When analyzing a large fire, the cause of ignition is important but circumstantial, and what is of real importance is to understand the cause and the reasons behind its spreading. It is naive to think that we can prevent all the fires from starting, despite considerable efforts being made in our regions to reduce their number and lower the vulnerability of our territories. There is however neither consensus nor a clear willingness of society to keep our territories alive so that they can adapt to fires, typical disturbance of our Mediterranean environment, and the only solution to guarantee the conservation of the values and quality of our landscapes. **Faced with pillars of fire tens of meters high or velocities faster than that of a walker we intuitively grasp that the extinction capacity is limited.**

However, if we are not willing to modify the vulnerability of our territories (the probability that a fire will develop into a high intensity one), this limit represents the level of technological risk we must accept as a society. We must then ask ourselves if this level of risk is acceptable from a social, economic, ecological and human perspective. The disappearance of grazing in the undergrowth, of wood production, and the abandonment of crops at the margins, explain why over time, the proportion of land that is "likely" to burn increases. The forest fuel accumulated in our woodlands reaches unprecedented levels that have the potential to generate such high intensities that, like a war offensive, the fire is burning in the air and on the ground. The abandoned agricultural fields cease to serve as fire-breaks, -secondary fires

pass them over- and traditional techniques and knowledge used to fight these small fires are exceeded by these fires "that we had never seen burning with such rage". Our extinction programs are increasingly efficient, innovative, far-sighted, but still lose the "battle": **the vast majority of the area burned each year is so by a ridiculous number of fires.** We thus have a constant, which is the latent risk of experiencing major forest fires; that for one reason or another, a fire would not be rapidly extinguished and would turn into a massive fire out of reach of our extinction capabilities. And we have a variable, associated with the likelihood that a fire becomes massive: a wet or dry summer, only one fire to which dedicate all resources or several simultaneous fires, the night following the departure of fire allows or not to recover the relative humidity levels, a stormy weather that allows to limit or extinguish the fire ... **This variable is the result of chance, of that permanent and inalienable uncertainty which reminds us that we humans can not control everything** - at least while we continue to see the fire only as an enemy to be fought.

We have traditionally used our territories, and sometimes abused, in times of shortage or need. Agropastoral and forestry activities have so far allowed us to maintain the balance between the natural ecosystem and fire disturbance. Their disappearance leads to an imbalance that the same disturbance, renewed and dramatically strengthened, tries to correct. A true conceptual parabola: nature has no need to reinvent itself. We definitely need to think things through, beyond the large repertoire of improvised measures we usually take; in the same way we would put together the pieces of a torn garment, not to find ourselves naked given the obviously serious consequences of the fact that our "fight" against fire can never be won. **When the forests and agropastoral management disappear from a territory, we must insist on specific preventive measures (firebreaks, strategic points, areas of priority protection, legislation to reduce the number of fire starts ...), on infrastructure for immediate detection and extinguishing (guard posts, road maintenance, water points, fire extinguishing resources...), on social awareness and the capacity for self-protection, but regardless of all this we will still be subject to chance.** Nothing will take away the nervousness of these afternoons when the sea breeze brings in its burning heat waves that push us under the shade of trees and the cool of our homes, nor the risk to hear the emergency frequency being awakened in different places at the same time, nor finally that a fire would approach an urban area, automatically multiplying the complexity of the emergency management.

We have to enhance the value of agro-forestry to strengthen its role in preventing fires, and create a direct financial link between spending on prevention and extinction, rural development and the production and marketing of local products. **All this underlines the fact that, only with a "living territory", we can keep the ashes away from our landscapes.** We will then be able to meet the tremendous social demand from the welfare society, which is generally not aware that what happens is a result of a loss of balance. **Alternatively, or in addition, we can accept without fear the role of fire as a natural part of the ecosystem, enabling the management of low intensity fires that improve our preparedness for future fires;** Accepting burned areas as part of a mosaic that enriches the diversity of our ecosystems and their species. **We must therefore use economic arguments to defend the benefits of forest management, livestock and agriculture, not only from the perspective of rural development, regional balance and quality of the landscapes, among others benefits, but also for the vital role they play in fuel management and fire prevention.**

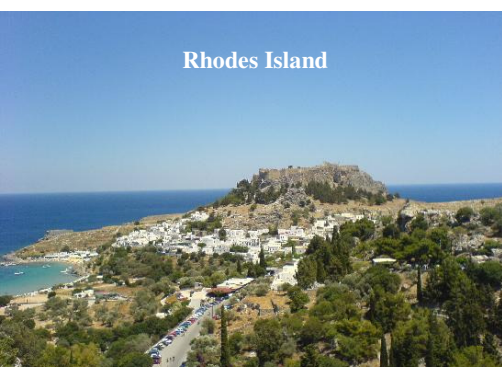
In the face of a social reality marked by a growing demand for forest use and maintenance of landscapes, preventing fire hazards may be an additional argument to promote forest management and agricultural activities that conserve these landscapes. In other words, we must consider fire risk management not as a problem, but as an opportunity for the further development of rural areas, with social, environmental and economic benefits. **We should in any case, be able to decide, or at the very least think and generate debate, on the forest fires we wish to have, in the territories we have decided to protect.**

Eduard Plana

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Rhodes Island



Forest Fire Education Centre - Turkey

