



Response to the Wildfires affecting the Island of Chios, Greece, in 2012

Between 18 and 22 August 2012 the Greek island Chios was affected by a severe wildfire. More than 12,700 hectares of forests, pastures and other vegetation types were burned. While fires are not an unusual phenomenon on Chios (Fig. 1) the wildfire of 2012 was very severe with regards to the ecological and socio-economic consequences. The fires were burning at extremely dry and windy conditions and were difficult to control (Fig. 2 and 3) and sent a smoke plume across, the Aegean Sea towards Crete Island, which was visible from space (Fig. 4).

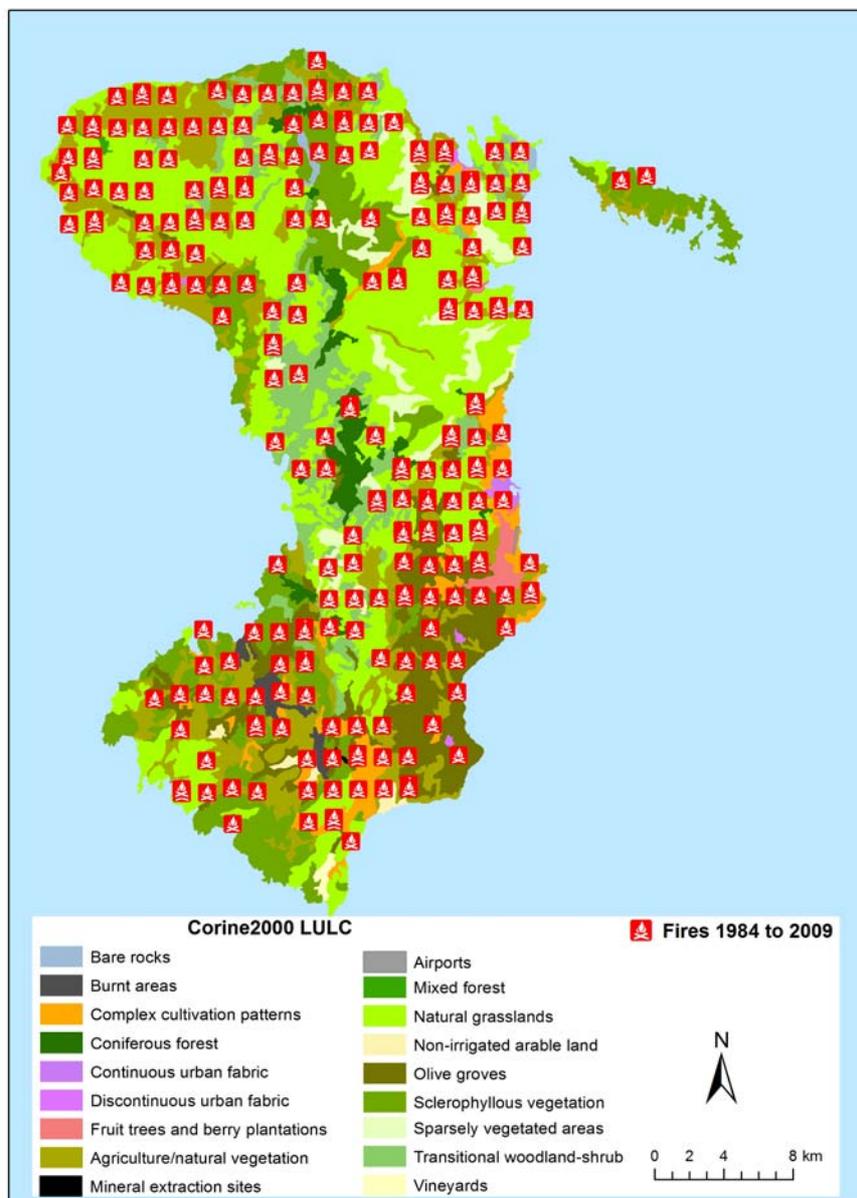


Figure 1. Reconstruction of wildfire occurrence on Chios Island between 1984 and 2009. Source: Ioannis Mitsopoulos, Global Fire Monitoring Center (GFMC)



Figures 2 and 3. The fast spread and the large size of the wildfires on Chios exceeded the capacities of local fire service to bring the fires swiftly under control. Source: Municipality of Chios. Source: Local media.



Figure 4. On 18 August 2012 the MODIS sensor on NASA's satellite Aqua the smoke plume stretching from Chios Island to the Southwest and reaching Crete Island. Source: NASA.

Most importantly, however, were the devastating impacts of the wildfire on the island's trademark mastic gum industry, which is based on the world's only mastic tree plantations. About a quarter of the island's mastic groves have been wiped out. In cash terms, producers were facing losing up to three million Euros a year, because after replanting, it takes up to a decade before producers can start tapping the trees for their aromatic gum. With its distinctive flavor, the gum-like resin – used in confectionery, cooking, cosmetics and medicines – is only produced by trees in southern Chios.

In the southern village of Pirgi, set among rolling hills once covered by tens of thousands of mastic trees that provided a quarter of the island's output, farmers say up to 45 percent of their trees have been lost. In addition, Associated Press reported that Chios beekeepers had lost an estimated 60

percent of their hives. In addition large tracts of grazing lands were affected by the wildfires, resulting in the loss of pasture resources for the 2013-13 season and beyond.



Figure 5. The burning patterns in the highland forests of Chios reveal severity of the wildfires, which occurred at the end of an extraordinarily dry summer in the Eastern Mediterranean region. Photo: GFMC.



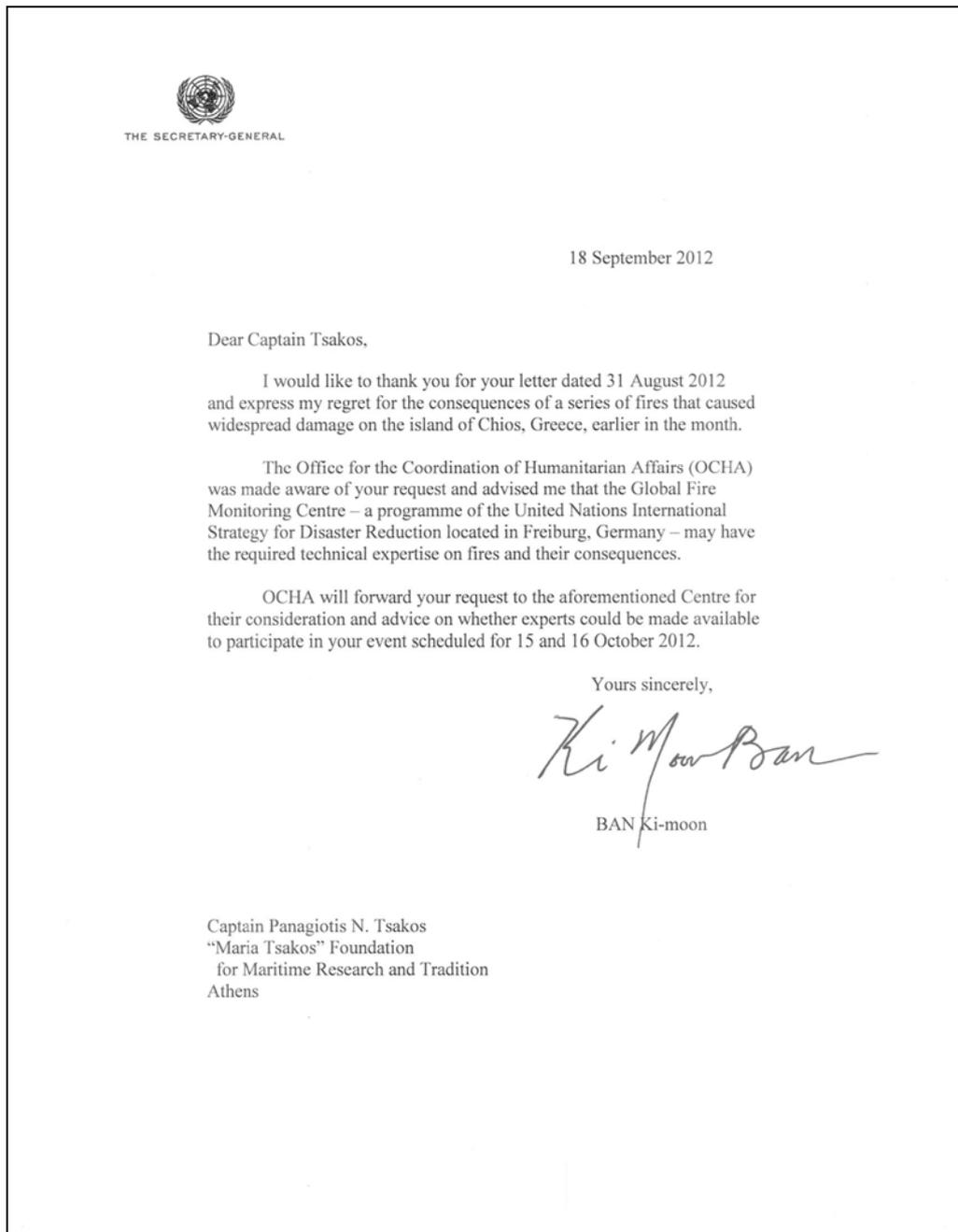
Figure 6. Nea Moni Monastery, a UNESCO Cultural Heritage Property, was severely threatened by the wildfires – but fortunately could be saved. Photo: GFMC.



Figures 7 and 8. The severity of the fire could be seen in places where even sparse and low fuel loads, e.g. on steep, rocky slope, resulted in mortality of wide-spaced individual trees (left).

Abandoned villages and terraces, overgrown by succession, were exposed by the fires and became visible as testimonies of a rich cultural history of the island (right). Photos: GFMC.

The severity and destructive consequences of the wildfires became immediately evident after the fires had been brought under control. The situation prompted Captain Panagiotis N. Tsakos, founder of the “Maria Tsakos Foundation – International Center of Maritime Research and Tradition N.G.O.” and owner of the Tsakos Shipping Company, to approach the United Nations Secretary General Ban Ki-moon. In a letter dated 31 August 2012 Captain Panagiotis asked the Secretary General for assistance to organize and follow up a congress, which should analyze the situation on Chios Island and to come up with measures that would contribute to prevent and mitigate the consequences of climate-change driven wildfires in this particular sensitive and vulnerable island. The UN Secretary General entrusted the UN Office for the Coordination of Humanitarian Affairs (UN OCHA) to seek advice through the Global Fire Monitoring Center (GFMC).



Letter of the UN Secretary General to the enquiry from Captain P.N. Tsakos, with the indication that the GFMC would be requested to provide support to the proposed activities. Source: United Nations, Headquarters, New York, Office of the Secretary General.



On 15–16 October 2012 the “Maria Tsakos Foundation – International Center of Maritime Research and Tradition N.G.O.”, organized the Congress “Our Response to the Fires: Working together for a better Chios”.

The Congress was held under the auspices of the Minister of Mercantile Marine and the Aegean, Mr. Kostis Mousouroulis, MP, and in co-operation with the Chios Municipality and Regional Unit.

The event was held at the Homerion Cultural Center of Chios.



Figures 9 and 10. Captain Panagiotis Tsakos and Johann G. Goldammer addressing the conference. Photos: Maria Tsakos Foundation.

The Congress adopted the following Resolutions:

RESOLUTION No 1

The CONGRESS,

HELD under the auspices of the Minister of Mercantile Marine and the Aegean of Greece, Mr. Kostis Moussouroulis, in cooperation with the Regional Unit and Municipality of Chios, and in cooperation

with related entities of Chios, by the “Maria Tsakos Foundation – International Center of Maritime Research and Tradition N.G.O.” (hereinafter referred to as the “Maria Tsakos” Foundation) for the purpose of providing a forum aiming to discuss, examine and provide recommendations towards the recovery of the Island of Chios and healing of the wounds it suffered from the devastating fires of August 2012 and, in parallel, establishing the foundations of the sound infrastructures necessitated for the prevention, response to, and elimination of, similar disasters in the future, as well as for the reconstruction, further development and economic growth of the island,

BEING ADVISED on the magnitude of the devastation caused by the fires in rural Chios and its agriculture (with a special effect upon the mastic producing villages and mastic production); the impact they have had on the local transportation network; and the subsequent landslide risks to the deforested areas,

HAVING CONSIDERED the scientific facts and evidence, the related recommendations and the substantive proposals made during the Congress by speakers, panelists and the audience,

TAKING INTO CONSIDERATION that, amongst others, the causes of forest fires are related to:

- a. Recently observed urbanization trend, resulting, among other, in the abandonment of traditional land cultivation, weakening of the rural work force and consequently in the accumulation of combustible materials in forests areas
- b. Insufficient preventive clearing of the forests
- c. Climatic changes and the negative impact they may have in the future
- d. Escalating value of land, in conjunction with the absence of forest charting and associated Registries, and
- e. Autumn fires, particularly those attributed to negligence on the part of farmers and breeders

RECOGNIZING that the restoration of all damages suffered should be carried out only in accordance with strict scientific criteria,

RESOLVES TO:

1. EXPRESS its deep grief for the devastation caused to the ecology and economy of Chios by the fires – particularly, to the mastic producing villages and the mastic production of the island, the worldwide uniqueness of which should be sustained and preserved for the present and future generations;
2. SHARE the grief and STAND BY the people of Chios, who have been affected by the fires in any way;
3. RECOGNIZE the urgent character of reviving economy of Chios; the reinforcement of the mastic villages aiming to their resurgence; and the revitalization of the island’s flora;
4. CONGRATULATE the “Maria Tsakos” Foundation for its prompt initiative to convene this Congress and related entities (governmental and non-governmental), which have co-operated in its organization,
5. EXPRESS warm thanks to Prime Minister Antonis Samaras, to the Ministries concerned and, in particular, to the Minister of Mercantile Marine and the Aegean Kostis Moussouroulis, for the immediate response and effective coordination and mobilization of all competent public and private bodies to eliminate the destructive effects of the fires and for undertaking all urgently needed measures to that effect;
6. CONGRATULATE and PRAISE the representatives of the Armed Forces and Security Services for effectively organizing and actively participating in the fire extinguishing operations;
7. CONGRATULATE and PRAISE all volunteers both from Chios and other Aegean Sea islands, who selflessly participated in the firefighting operations;
8. WARMLY THANK the United Nations Secretary-General, Mr. Ban Ki-Moon, and the European Union Commissioner for Regional Policy, Mr. Johannes Hahn, for delegating their representatives to the Congress, as a true expression of their support and solidarity towards the people of Chios;
9. ALSO EXPRESS warm thanks to His All Holiness the Ecumenical Patriarch Bartholomew and His designated representative to the Congress, His Eminence Markos, Bishop of Chios, Psara and Oinousses, for their support, affection and blessings demonstrated, in various ways, to those affected by the fires;

10. THANK the representatives of the Ministry of Merchant Marine and the Aegean, the Ministry of Development, Competitiveness, Infrastructure, Transport and Communications, the Ministry of the Environment, Energy and Climate Change and the, Ministry of Rural Development and Food for their substantial contribution to the successful running of the Congress and the adoption of pertinent recommendations aiming at promoting its set objectives;
11. ALSO THANK the chairpersons and speakers for delivering appropriate lectures as well as the participants who actively contributed to the presentation of the fire- related problems and the subsequent success of the Congress,
12. ADOPT the Conclusions and Recommendations of the Congress (as shown in the Annex) and, for the purpose of their implementation:
13. INVITES the competent Ministries, the local Authorities of Chios and the relevant public and private sector bodies to take as soon as possible appropriate and necessary action, within the framework of the attached recommendations, towards strengthening and revitalizing the economy of Chios; the recovery and further development of its qualitative and quantitative productivity and trade; the modernization of means and procedures of agricultural and rural development; and the promotion and implementation of relevant educational programmes;
14. EXPRESS grateful thanks to the “Maria Tsakos” Foundation for convening, organizing and running the Congress, inviting distinguished personalities and high-level speakers from Greece and abroad; and for the overall financial support provided; and
15. EXPRESS warm thanks to the Homerion Cultural Center of Chios (donation of the late Michael and Stamatia Xyla) for hosting the event and providing excellent facilities for its smooth running.

ANNEX

Conclusions and Recommendations of the Congress

Conclusions

- In the course of the second half of the last century and thereafter, an alarming upward trend has been evidenced in Greece, both in terms of the burnt area outliers and the number of forest fires.
- The number of forest fires and the total burnt area appears to be highly correlated to a new climate index defined as the ratio of the average temperature to the average relative humidity during the months of July and August.
- The average summer temperature in the Greek region and, in particular, the eastern Aegean Sea, has increased over the last 50 years by about 0.5 degree Celsius per decade, while it is anticipated that, in the forthcoming decades, this trend will continue, with a respective decrease of relative humidity and increase of wind force in the Aegean.
- By the end of the 21st century, it is expected that these variations will eventually increase the duration of the hazard period by more than a month per year.

Recommendations

- Immediate declaration of disaster stricken areas as reforestable.
- Immediate declaration of the Island of Chios as a fire-ravaged area and subsequent submission of a relevant application to the European Solidarity Fund.
- Close and continuous monitoring of the regeneration of the burnt areas by competent authorities. No intervention should be allowed to the burnt mastic trees and forests up to the beginning of spring 2013, when an accurate assessment of their natural recovery will be possible.
- Immediate redesign of preventive plans and fire protection strategies should be undertaken. Thus, the implementation of the resolutions adopted by the Congress will provide guidance for a more effective prevention of hazards and protection of the remaining forests.
- Taking into account that the forest areas of the island not be burnt in the last 20 years will regenerate by natural processes, there is no need of any additional action of reforestation. However, a scientific depiction of the regeneration capacity in disaster stricken areas is required in order to establish whether there is a need for intervention. Scientific substantiation can be performed by methods successfully applied in the past, both in Greece and in other Mediterranean countries, e.g. Spain.

- Any anti-flood/ anti-erosion works, if and when decided, must be executed under strict criteria and with due respect for the affected environment, taking into consideration the existing biodiversity. Such works are recommended to be undertaken using – where possible bigger materials and resources locally available thereby avoiding further damage to the natural environment.
- Under the provisions of the applicable law, concerning forests, widespread logging should be prohibited, as this causes soil compaction, destruction of the structure of the ground and of its biological elements, and alteration of the hydrological conditions – while the existence of trees helps the retention of the soil and its regeneration. The selective removal of burnt trees is recommended.
- There is no need for the construction of bundles of logs and of grids of branches on flat or rocky areas.
- With respect to the mastic trees (originating from the variety of the species *Pistacia lentiscus* var. Chia “schinos”, which has a high post-damage recovery potential), it is expected that such regeneration will take place, unless their root system has been damaged. This must be ascertained on the spot and per site, depending on the severity of the damage. What is not easy to ascertain is the time frame within which the re-born sprouts will evolve. An initial assessment is that trees whose trunks are not completely destroyed may regenerate in a faster pace than expected. It is further recommended to avoid the removal of burnt mastic branches or of the fallen branches in order to avoid erosion.
- The grazing and hunting must be prohibited as natural regeneration is hindered by grazing. Consequently, in order to minimize the load on burned sites, non-productive animals must be curtailed; cattle should be herded in adjacent unburned areas and alternative animal feeding sourced.
- The creation of a grazing management plan is necessary not only in order to minimize any negative impacts but also in order to benefit the animals themselves (for example, the improvement of the abandoned fields and the potential fertilization of unburned areas) is recommended.
- The qualitative and quantitative monitoring of the water resources throughout the island and their efficient management should be undertaken.
- Measures must be taken for the protection and restoration of apiculture, while ensuring that the production is adequate and quality of honey is not affected.
- Special care must be taken by expert bodies towards the relief of victims of possible psychosomatic effects arising in some groups of the population from the devastating fires.
- The establishment and completion of a Land Registry and forest maps is necessary.
- The creation of a hiking path network, spread out to the whole of Chios, by opening, maintaining, upgrading and signaling existing, abandoned routes and historical paths, is also recommended.
- The local creation of “natural parks” for scientific research and education purposes, as well as for the promotion of public awareness on environmental protection in conjunction with the materialization of sport and environmental activities, should be encouraged.
- A general and specific spatial landscape plan should be designed for Chios in which zones of mixed land use, e.g., mastic plantations, agricultural fields, pastures intermixed with scattered structures and villages, should be obliged to develop a fire management plan.
- A pilot project aimed at assessing and planning how local rural inhabitants be involved to prevent forest fires and to be properly prepared, instructed, and trained in defending their homes, villages, gardens, mastic plantations and surrounding forests and brush vegetation against wildfires.
- Given the similarity of problems on other Aegean islands, on mainland Greece and in neighboring countries, it should be considered to organize a regional consultation addressing the “Defense of Natural and Cultural Assets and Human Populations against Wildfires”, associated with a “National Round Table on Fire Management in Greece”, involving national and regional expertise at both events to formulate recommendations to the government of Greece to address the future challenges in fire management.¹

¹ IFFN Editorial Note: The regional consultation addressing the “Defense of Natural and Cultural Assets and Human Populations against Wildfires”, associated with a “National Round Table on Fire Management in Greece”, will be held in 2013. The outcomes will be published in IFFN Issue No. 43 (2013).

The Congress was informed by the North Aegean Prefecture Authorities that their strategy for the reconstruction of the stricken areas of Chios will aim at:

- Administrative proceedings and measures towards the immediate support and relief of affected citizens;
- Medium-term infrastructure reconstruction of the local economy and the production structure; and
- Long-term planning for the completion and full utilization of the existing infrastructure aiming at the revival of the local economy.

Essential means in this planning will be:

- The use of existing financial resources (Finance Ministries, the National Strategic Reference Framework and private donations);
- The declaration and affirmation of the areas concerned as fire-affected; and
- The exploration of potential funding from the European Solidarity Fund.

Moreover, the Congress noted the following proposals seeking governmental support:

1. Establishment of an institutional network under the legal entity of a Non-Profit Organization, in accordance with article 101 of Law 3852/20012 (KALLIKRATIS), providing for a joint participation of the Chios Municipality and District authorities, the University of the Aegean, the Chios Mastic Producers Union, the Chamber of Chios and the Regional Development Company of Chios aiming at the reconstruction management of the region.
2. Strengthening support and provision of incentives towards distinct business and manufacturing clusters, such as the tourism industry and local agricultural producers (mastic-tree growers, apiculture and farming).
3. Elaboration and implementation of developmental projects for the tourism industry and promulgation of awareness campaigns of local unique qualities, both domestically and internationally.
4. Upgrading and reconstruction of existing production infrastructures.

Specific proposals concerning impending actions were adopted as follows:

1. Compensation to all affected mastic gum growers, not only in terms of this year's production, but on a 5-year timeline horizon.
2. Full recuperation of the affected mastic cultivation and production.
3. Governmental and associated authorities support towards the creation of a mastic trees seedling nursery.
4. The design and implementation of appropriate European Union (EU) legislation and policies related to the protection of unique remote areas and/or islands, regardless of the EU country they belong to.
5. Volunteer action acknowledgement and reward, both of local groups and from areas beyond Chios, such as Mytilini, Samos and Ikaria (see Resolution No. 2)
6. Declaration of certain unique trees and flora, in specific areas of Chios, as monuments of natural heritage under national or UNESCO rules (see Resolution No. 3)
7. Design and establishment of a holistic business plan by and under the supervision of the General Secretariat of Aegean and Island Policy (Ministry of Merchant Marine and the Aegean) for the actual implementation of the recommendations adopted by the Congress.
8. The "Maria Tsakos" Foundation to undertake a follow-up process, at regular time intervals (e.g. 3 months), to monitor the progress, execution and implementation of the aforementioned business plan, in cooperation with competent entities.

RESOLUTION No 2

The CONGRESS,

HAVING BEEN INFORMED about the wide-ranging acts of volunteerism committed during the August 2012 fires on the island of Chios, and

RECOGNIZING the immense and critical contribution to the extinction of the said fires by volunteers from the islands of Chios, Lesvos, Samos and Ikaria, in support of the substantial efforts of local authorities and agencies.

RESOLVES TO:

1. ACKNOWLEDGE AND CONGRATULATE all volunteers, especially those who placed their lives at risk while offering valuable preventive and fire combating services;
2. ENCOURAGE AND REWARD such acts of volunteerism;
3. EXPRESS THE WISH that the very notion of volunteerism be spread and extended throughout the country; and
4. INVITE the "Maria Tsakos" Foundation to take all necessary measures to support the establishment of networks of volunteers so that they may expand their activities to arising needs all over the country.

RESOLUTION No 3.

The CONGRESS,

HAVING BEEN INFORMED, by the Federation of Cultural Association Settlements of Southern Chios, of the existence of trees, many of which, according to experts, exceed the age of one thousand years,

RECOGNIZING the specificity of these trees, together with "Prina" and "Shina", in the overall cultural heritage of Chios and their contribution to the development of the island's tourism,

DESIRING to contribute to the protection of the flora of Chios,

RESOLVES TO:

DECLARE the trees, 'Prina' and 'Shina' (as they are described in the attached letter of the said Federation of 16th October 2012) as Monuments of Natural Interest and INVITE the appropriate authorities to adopt all measures necessary to ensure that, henceforth, such Monuments are treated with appropriate care and are preserved.

ANNEX

Message of the Federation of Cultural Associations of Settlements of South Chios to the Committee of the Congress "Our response to the fires"

The Federation of Cultural Associations of Settlements of South Chios (O.P.S.O.N.CH.) greets the convergence of the international conference on countering the effects of the fires, which affected the island of Chios, causing disasters among others and to the mastic trees.

The O.P.S.O.N.CH., wishing to contribute to the protection of the flora of the island notifies about the existence of trees, some of which, according to the opinion of experts, exceed the age of 1000 years:

1. Olive (Liverani) in Pera Mylos of Kallimasia, height perimeter of the parapet: 12.50 meters
2. Oak (Orphanides) in St. John of Sklavia, minimum perimeter: 8.20 m
3. Prina of gigantic dimensions in the areas of St. George Kydiantas and of Flori at Epos.
4. Shina that survived from the low temperatures of 1850 near Tholopotami.
5. Tsikoudia (Pistachia terebinthus atlantica) in Kambia of Kallimasia

A relevant resolution, by your committee, concerning their declaration as Monuments of Nature, would not only contribute to their protection but also to the development of tourism of the island.

Chios, 16 October 2012

Upon instruction of the President of O.P.S.O.N.CH
Dim. Melachroinoudis, Secretary



ΥΠΟΥΡΓΕΙΟ ΝΑΥΤΙΑΣ ΚΑΙ ΑΙΓΑΙΟΥ

MINISTRY OF MERCANTILE MARINE AND THE AEGEAN



Municipality of Chios

OUR RESPONSE TO THE FIRES Working together for a better Chios

Congress organized by the
“Maria Tsakos” Foundation – International Center of Maritime Research and Tradition N.G.O.
under the auspices of the Minister of Mercantile Marine and the Aegean
and in co-operation with the Chios Municipality and Regional Unit

Homerion Cultural Center of Chios and
“Maria Tsakos” Foundation – International Center for Maritime Research and Tradition
15-16 October 2012

United Nations Partnerships in Strengthening the Role of Civil Society in Fire Management

Prof. Dr. Dr. h.c. Johann Georg Goldammer
Director, Global Fire Monitoring Center

Captain Tsakos
Excellencies
Ladies and Gentlemen

Looking down from space to the planet Earth during the year 2012, the crew of the International Space Station observed smoke columns from fires burning in all continents. While in some ecosystems of the world fires occurred as a natural factor, or fires used as traditional and sustainable tool in land management, there were some smoke columns arising from locations which were considered safe haven of fire-sensitive ecosystems and biodiversity. This year severe fires destroyed large parts of such vulnerable ecosystems, for instance in the UNESCO World Natural Heritage sites in Southern Patagonia of Chile, or on the Canary Islands in the Atlantic. However, society was affected, too. In 2012 massive fires burning in North America, the Mediterranean region and Australia forced evacuations of more than 75.000 people. Wildfires also caused a large number of fatalities and high economic damages. Globally more than 160 firefighters and civilians lost their lives in wildfires in 2012, almost 3000 people were injured.

On 18 August 2012 Earth observation satellites registered an extended smoke column arising from the Island of Chios and spreading from the Aegean Sea southward toward the island of Crete. What the satellites could not see: The severity and impact of a disaster which deeply affected the ecology and society of Chios. The destruction of a major part of the world's unique resource of mastic is a tragedy that is unprecedented in the fire history of the Aegean and of Greece. The fires of August 2012 affected the heart of Hellenic culture.

Chios, an island with a rich, ancient land-based cultural history, cannot be understood without the surrounding maritime environment of the Aegean and the Hellenic tradition of seafarers. Born and rooted in the culture of Chios young men were motivated to become seafarers, and, as once stated by Captain Panagiotis Tsakos, the founder of the Tsakos Foundation, to become a *kalos kapetanios* – a *good captain* – who would become a global envoy of the Hellenic maritime spirit.

The Aegean history, not very much different from the Hanseatic environment from where I am stemming, is telling us that no captain, no ship in the world can serve its mission without a homeland, without the land base, from where they are leaving – and to which they always will return, sometimes following the lights of a fire set ashore, fires that were set to signal both – farewell and welcome back home. A land-sea symbiosis to which I would like to return at the end.

The core mission of the “Maria Tsakos Foundation – International Center of Maritime Research and Tradition” is the promotion of maritime culture and tradition in Greece and abroad. It was established

as part of the Tsakos Group's inherent social responsibility vis-à-vis the shipping industry, the marine environment and the society as a whole. Alarmed and concerned by this destructive fire Captain Tsakos approached the Secretary General of the United Nations, Mr. Ban Ki-moon, in August 2012, to seek for advice to follow up this major disaster. The Secretary General responded by expressing his regrets about the destructive fire that affected Chios and suggested that the Global Fire Monitoring Center would work with the Foundation.

Indeed, the United Nations system is mandated and available to serve nations and people, and to protect the global environment. But there is a need for a sound symbiosis between the “political and administrative” arm of the United Nations and those who own the United Nations system – the people. Without the spirit and the engagement of civil society in preserving the global environment the UN system would not be in the position to manage this mammoth task.

Similarly, there is a symbiosis between humans and fire. In an opening address to the last International Wildland Fire Conference in South Africa in May 2011, which I had the honor to convey to the conference attendees, Secretary General Ban Ki-moon stressed:

“Wildland fires destabilize ecosystems and the global atmosphere, and have clear implications for human health and security. Unlike other natural hazards, wildland fires are primarily caused by human activities. Measures to prevent them – such as education, awareness-raising and capacity-building – are well known and within reach. Community-Based Fire Management is particularly important.”

Globally the vast majority of fires are caused by people, thus they can be prevented and controlled. Thus, any fire management system, regardless if based on advanced technologies, or on traditional knowledge, can only work if people are participating actively and taking responsibility.

The Secretary General further stated:

The transboundary effects of wildland fires associated with long-range smoke transport and emissions are prompting the international community to strengthen cooperation in fire management. International organizations and civil society groups are working to build capacity, develop advanced technologies and promote sustainable land-use practices.

The UN system is strongly committed to this effort. Our work encompasses many aspects of fire management, including agriculture, forestry, health, science, the environment, emergency response and weather forecasting and monitoring.

We welcome the efforts of fire specialists to build a culture of prevention and to develop a spirit of global cooperation.

The UN system is available to provide the best professional advice, to support countries in developing land and fire management policies and fire management capacity with the ultimate aim to make natural and cultural ecosystems resilient to damaging fires. But the success of all these efforts are depending on the active participation and taking responsibility of civil society.

The Global Fire Monitoring Center, based in Germany, is serving the United Nations International Strategy for Disaster Reduction. Its most efficient mechanism is the Global Wildland Fire Network, within which numerous regional networks, government bodies, and civil society organizations, together with the UN specialized agencies and other non-UN international organizations, are cooperating. The Global Fire Monitoring Center and the Global Network are available to facilitate the dialogue between the science community, the people responsible for and affected by fire, and the policy makers.

In its relationships with Greece the Global Fire Monitoring Center is looking back to a long tradition of cooperation. Since the late 1970s we have exchanged expertise and views on fire management in the Mediterranean Basin. The first European Symposia on Fire Ecology took place in 1977 and 1982 in Freiburg (Germany) and explored the environmental and human ecology of fire. Close relationships with Greece developed in the 1980s and have resulted in efficient networking and partnerships, such as our cooperative work with the European Center on Forest Fires based in Athens, academics at the Aristotelion University of Thessaloniki, and the Hellenic Agricultural Organization "Demeter".

These institutions are working together in order to understand the changes of land-use and the changes of cultural fire regimes over time. We intend to explore why the many fires that historically occurred or were used in the Mediterranean Basin, including the islands of the Aegean islands and mainland Greece were different, were less destructive. Why was the historic cultural environment more resilient to fire? Was this due to more intensive land cultivation, more intensive use of biomass, due to more dependencies of people on the produce, and thus a more active the protection of their lands? What are the consequences of the rural exodus, the urbanization of the young generation with regards to land cultivation?

The reflections about the Aegean brings me to my personal insight in the fires in Greece. Back in 1985 the Greek Foundation *Idryma Kratikon Ypotrophion*, invited me to visit the country and to enter in a dialogue with Greek scientists on forest fire ecology and management.

The summer of 1985 was a hot summer in Greece during which many large, devastating fires affected the country. On Sunday, 18 August 1985, I took the boat from Kavala to Thassos Island. From a long distance I could see the huge smoke column rising over the island and a fast developing forest fire. On this very day it was one of more than 50 wildfires burning in Greece.

Arriving in the harbor of Limenaria I saw a detachment and command post of the Greek Navy, led by an Admiral, several ships, including Greek Navy warships anchoring in the Bay of Limenaria, and Navy soldiers getting ready to fight fires.

I talked to the Admiral and offered assistance, explaining that I was a reserve officer of the Federal Germany Navy, commanding officer of a Navy ship, but also a forest fire expert, my civilian profession. Some 15 minutes later a Navy Lieutenant knocked at the door of my hotel room and reported to me: "Sir, the government in Athens has authorized us to use your assistance."

What followed was the finally successful attempt to save some of the forests of Thassos, and the village of Maries. I did my best to support decisions of the governor of Thassos, who was in charge of handling this the emergency situation. And I worked with General Skoulas, Greek Army, who had put up his firefighting headquarters at the community building of Maries – a carefully, calmly and responsibly acting officer.

Navy soldiers arrived from Limenaria. I gathered and instructed them how to fight the fires with the few water buckets, hand tools and wet towels they brought uphill from the coast. We called aerial assistance by water bombers, they did several successful drops. I instructed the villagers how to defend their gardens and houses against the flames. In the end, the fire on Thassos Island had caused huge damages, but Maries and other villages were safe, and the mariners had bravely contributed to this success.

When the fires around Maries calmed down I checked the situation in the forests nearby, which were still smoldering. There I encountered a burning old chestnut tree. This tree had caught flames, the inside of the trunk of the tree was glowing, but the tree was still standing, alive with green branches. I sat down nearby and accompanied tree in its final way to destiny.

Here I felt that there were two different souls in the two chambers of my heart which had governed my response to the fire in Thassos. In one chamber was the heart of a forester and ecologist, the mission to protect our forest from fire destruction. The other chamber was the heart of the Captain of a ship, used to command seafarers, and now for the first time to guide the mariners to battle a forest blaze. Here in Thassos I felt the unity, the symbiosis of both.

By reflecting about these experiences in 1985 I would like to congratulate and encourage Captain Tsakos to support the next generation of Chios islanders to become a *kalos kapetanos* – a *good captain* – in the spirit of the preservation of the Hellenic culture and the environment, both at sea and at home ashore.

Thank you, Captain, Excellencies, ladies and gentlemen, for your attention and your patience.