



7th International Wildland Fire Conference

Regional Statement of the Mediterranean Region – An Input Paper to the Conference Statement

30 October 2019

Introduction

Fire is a natural element that has played a main role in the definition of the Mediterranean's current landscape where it has been historically used as a management tool in the rural areas.

However, wildfires are one of the main threats that affect forests, the environment and ecosystem services, as well as people and property. Wildfires are also a factor of desertification and degradation in rural and natural areas. Some tragic episodes in the region, which resulted in significant losses of human lives and woodlands with high ecological value (Portugal 2017 and Greece 2018), have proven this situation to be true.

Mainly the age structure of rural communities, the abandonment of rural areas, the expansion of forestland, the global warming trends and the increase of the urban/rural interface areas, define the current and future scenario. This overall scenario presents the challenges for fire management systems as well as for other sectoral policies managers (e.g. rural development, conservation of protected natural areas, agriculture and urban planning) with which the coordination is absolutely necessary.

Key factors

The analysis of the current situation shows that the challenges faced by Mediterranean countries are determined by the following key factors:

1. Fire has been a historically present element in our ecosystems, shaping our landscapes. Fire is a management tool that, if well planned, can be beneficial to maintain ecosystem services.
2. Wildfires are a recurrent phenomenon that can cause the loss of natural, cultural and economic resources, as well as human lives. It is essential to reduce their threat and avoid their negative impacts.
3. Wildfires are mainly caused by human related activities. Raising awareness and encouraging population involvement through education, as well as adopting appropriate regulations, are all essential requirements.
4. Climate change and new social and landscape models (global change) are posing new threats to wildfire management. The accumulation of forest cover due to the abandonment of traditional rural activities, the creation of anthropogenic forest structures (e.g. plantations), plus the expansion of urban population to forest areas, generate a difficult scenario to manage when a wildfire starts. Wildfire dynamics are changing.
5. Sectoral policies and wildfire policies need to coordinate efforts. Wildfire management measures need to take other sectoral policies into consideration, such as rural development, urban planning and conservation, among others, and vice versa.
6. The involvement of the population is necessary. Rural, metropolitan, wildland urban/rural interfaces population and school population in particular should be included in the awareness and preparation actions, so they can become aware of their responsibility as a part of the decrease of negative impacts of fire.



7. Coordination and cooperation between countries in wildfire management is needed. Joint activities to exchange experiences and knowledge, including lessons learnt and good practices, should be encouraged to improve support between countries before, during and after wildfire events.
8. Training of firefighting prevention and suppression resources is crucial, and must be aimed at the professionalization and standardization that allows a safe exchange of resources, generating the interoperability of assets that reverts to efficacy and safety.
9. Research and development of new technologies must address real needs of end users, underpinning risk reduction and strengthening links between researchers and managers to ensure the effective investment of resources and the applicability of the results.
10. Proactive and timely post-fire actions are an opportunity. Effective management after wildfires needs to be planned in advance based on strategic plans, avoiding non-resistant and resilient landscapes. This also requires planning post-fire management actions in high fire risk areas before fire occurrence to allow for a timely restoration process.

Priority lines of action

Based on the analysis of the current situation and the mentioned key factors, the following priority lines of action, including strategic guidelines, have been identified.

1. RURAL LAND MANAGEMENT: ACHIEVING LANDSCAPE SUSTAINABILITY

- Promote rural land management especially in areas of high fire risk, specifically including forestland management measures looking for the competitiveness of the sector and the profitability of the productions (bio economy).
- Support the work, improve their profitability, and achieve the permanence in the territory of rural actors, particularly in areas exposed to large fires, by integrated measures of the Common Agricultural Policy (EU), extensive farming and silviculture to create and preserve landscapes with economic value resistant and resilient to wildfires.
- Structure a fire prevention strategy, through participatory and integrated territory planning tools, which reconciles the interests present in the rural environment with those regarding nature conservation and urban areas in a compatible manner.

2. WILDFIRE PREVENTION: REDUCING RISK WHILE INCREASING PREPAREDNESS

- Improve preventive planning and implementation measures in forest management looking for the resistance and resilience of the forest cover against wildfires, such as increasing mixed ecosystems and species with lower flammability appropriate to the territory creating heterogeneous landscapes.
- Promote wildfire preparedness through the development of training initiatives, simulations, and exchange of experts and experiences, under common standards.
- Reinforce accuracy, standardisation and harmonisation of wildfire statistics by improving data collection and processing methodologies, along with the incorporation of satellite information.
- Promote investigations regarding wildfire causes as the first step to understand wildfire reality and plan prevention policies accordingly.
- Reduce the number of uncontrolled fires by working on prescribed burns to achieve the reconciliation of interests and the balance between rural population and wildfire manager's needs. Train identified rural actors in the use of fire as a prevention tool.



- Promote the development of biomass programs and strategic planning to reduce fuel, create circular economy and job opportunities in rural areas.
- Promote local plans of self-protection in areas of wildland urban/rural interface, involving public and private entities in order to foster the joint responsibility and an adequate preparation against wildfires.
- Develop awareness targeted campaigns to different audiences such scholars, rural population, wildland urban interface population, metropolitan population, journalists and media, tourists and urban planning policy makers.
- Ensure interagency coordination for prevention, preparedness and post-fire restoration policies. Post-fire actions are opportunities to invest in wildfire resistant and resilient landscapes.

3. WILDFIRE SUPPRESSION: STRENGTHENING INTEROPERABILITY OF RESOURCES

- Emphasize the need of common standard procedures and protocols to increase efficacy, efficiency and safety during the exchange of resources in firefighting operations. Develop and implement an Incident Command System (ICS) type model adapted to the region.
- Promote regional training initiatives, with a special focus in neighbouring countries under common operational standards highlighting the relevance of the liaison officer as a key figure to ensure integration of resources from different agencies.
- Certify both training and qualification of the personnel involved according to common standards enabling versatility among personnel ensuring fluid exchange of roles throughout the duration of the emergency. Develop a database of experts and firefighting units/modules with their respective competencies and capacities.
- Enhance the important of early warning systems and early first attack to wildfires to reduce their negative impacts.
- Encourage real-time information exchange on suppression assets (ground and aerial) for operational monitoring and for safety concerns.
- Strengthen safety measures and protocols for wildfire fighters recognizing that human-related factors are crucial for personnel safety and preparedness. Recognize that wildfires out of suppression capacity are a great risk for firefighters and, therefore, their work should be re-assessed in these situations.
- Promote the development of the wildfire analyst profile to support decision-making by reducing uncertainties and clarifying possible scenarios, shifting to a more anticipatory and proactive approach in the suppression strategies.

4. INTERNATIONAL COOPERATION: REINFORCING PREPAREDNESS

- Enhance international preparedness and cooperation in all phases of the wildfire cycle, e.g. public awareness programs, education, research.
- Develop common protocols for the exchange of resources in complex situations and objectives in the areas of prevention, suppression and post-fire restoration under a joint Mediterranean Strategy for Wildfire Management.
- Expand collaborative efforts with other regions of the world possessing similar vegetation and wildfire problems (California, Chile, and Australia).



5. COORDINATED RESEARCH: PROVIDING ANSWERS TO END USERS' NEEDS

- Define and develop strategically applied research objectives aligned with the user's needs to ensure investments have a real application for wildfire managers and other stakeholders.
- Ensure the link between research results and the operational sector by developing training activities, knowledge and technology transfer initiatives.
- Improve exchange of knowledge on wildfire causes, investigation procedures, and training as a key element to implement prevention strategies and to decrease the number of wildfires with unknown origins and motivations.
- Increase the understanding of social, landscape and economic drivers of wildfires through research to support the development of different sectoral policies.
- Promote an active process among wildfire managers and users to identify gaps and needs regarding different areas. The latter should then be supported by research oriented towards finding a balance that ensures achievable results.
- Increase efforts from research community in the following identified areas:
 - Fire danger prediction short-term and seasonal
 - Spatial analysis of climate effects; fire danger and fire regimes
 - Fire behavior of critical fires/atmospheric instability/fire typology analysis
 - Information systems/tools/ for analysis and reporting
 - Fire emissions & dispersion
 - Fire risk cartography and methods
 - Exposure and ignitions at the urban/rural interface
 - Prescribed fire planning analysis/tools
 - Fire severity/restoration
 - Education and awareness campaigns
 - Communication to policy makers, press and influence groups

Main advances achieved since the last International Wildland Fire Conference

Since the 6th Wildfire Conference, the Mediterranean region has been very active at three levels.

Regional meetings

Through regional regular meetings, specific workshops and side events in different scenarios, wildfire management challenges have been highlighted and fruitful discussions have been taken place among all stakeholders involved. Some examples are the following ones:

- Annual meetings of the European Commission's Expert Group on Forest Fires (2016, 2017, 2018, 2019)
- Workshop on forest fire risk management. Under a new wildland fire context: How to face mega fires in Europe (Portugal, 2018)
- International workshop in forest fire management in Mediterranean region (Turkey, 2018)
- Session on wildfire preparedness at the European Civil Protection Forum (Belgium, 2018)
- Workshop of the *Silva Mediterranea* Working Group on Forest Fires (Spain, 2018)
- Side event on wildfire prevention and restoration. Linking actions before and after fire. VI Mediterranean forest week (Lebanon, 2019)

Regional exercises

As wildfires do not understand about borders and since more neighboring countries are facing wildfires problems for the first time, Mediterranean countries have shared their knowledge and expertise in several exercises where interoperability and coordination have been tested as preparedness for real wildfire emergencies.



Table top and field exercises involving experts and modules for several European and Mediterranean countries have taken place in Croatia (2017, 2018, and 2019) and France (2019), among others.

Transfer of knowledge and experience within and beyond the Mediterranean

Both in the context of advisory and response missions, Mediterranean countries have expressed their solidarity. Wildfire prevention strategies and analysis of new wildfire scenarios have been in the center of this transfer of knowledge and expertise.

Main transboundary mission, involving experts and modules from many different European and Mediterranean countries have taken place in Chile (2017), Portugal (2018), Greece (2019), Bosnia & Herzegovina (2019), Guatemala (2019) and Bolivia (2019).

Conclusions

In recent years, many steps have been taken through research, development of new technologies, professionalization of fire-fighting resources, population awareness and conciliation of interests. However, to cope with wildfires as the complex reality they are, there is still a long way to go in the implementation of prevention and preparedness measures that will allow us to:

- Create resistant and resilient landscapes, reducing the negative impacts and increasing the ability of recovering quickly.
- Face response operations in a more effective and safe way in the benefit of population and wildfire suppression resources.
- Have a more responsible and involved politicians and population in the prevention of wildfires.
- Integrate all actors from all different sectoral policies with a role and responsibility on wildfire management.