

Pan-American Wildland Fire Conference

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South America Regional Brief on International Cooperation in Wildland Fire Management¹

Wildland fires in the South America region occur in different forms from one country to the next, depending on different climatic conditions, vegetation, orography, land uses, cultures, and social behavior. This leads to the fact that occurrences and propagation of wildfire vary among countries. Even by analyzing each country separately, significant differences can be observed in the magnitude and characteristics of the problem, as well as differences from one season to another. In recent years, the majority of area damaged by fire (88%) has been concentrated in Argentina, Bolivia and Brazil, which together with Chile comprise most of the annual or seasonal fire events. Fires occur at different times throughout the whole year in the region, with particular differences between countries, in accordance with their climatic characteristics and geographic location.²

Different economic situations in each country result in differences concerning capabilities to implement fire management programs, levels of understanding the problem, and efficient application of technologies and organizational schemes. This is also influenced by the conception and priority given to the value of forest resources and the need to protect them within national laws and policies. At the same time, traditional land uses generate situations in relatively poor countries that restrict the implementation of actions that might be considered normal in other countries.

Only a few countries in the region have statistical systems that are operational and possess complete and reliable information. In half of the countries in the region, reliable information about wildland fires is not available or is not published.

More than 95% of the fires in South America are human causes.³ Common sense and the experience of professionals in the field lead to the conclusion that, without doubt, the use of fire to clear land for agriculture, livestock, and human settlements, is the major cause of wildland fires and the destruction of forests in South America. In Brazil and Chile there has been a notable increase in intentionally set fires and arson around large urban areas, arising as a mental illness that is being product of development or of civilization.

In Chile, large plantations and wood industries located in poor rural areas, invite the use of fire to destroy forests and infrastructure as an expression of discontent because benefits are not generated for the neighbouring populations. Added to this are the activities of indigenous people by claiming rights to land ownership that they believe has been theirs in the past.

In accordance with the tendency of the last decade, it seems that the wildland fire problem is increasing in the region. The risk involved in this is the increase of *threat* to forests and their increased *vulnerability*. The *threat* may be explained by the human causes of fire; in other words the greater urban expansion that leads to a higher human pressure on natural areas, conflicting claims over land ownership, expressed intentionality of attitudes of mental insanity, increasing deforestation and persistent agricultural burning without taking necessary precautions, create an adverse scenario. The increased vulnerability may be explained by phenomena of climate change - evidenced by an increase in the frequency of El Niño in the decade of the 90s - causing an increase in combustible biomass, prolonged droughts and increase in temperatures. This indicates that already few fires would produce large damage. Finally, the increase in monoculture plantations without silvicultural prevention practices (such as pruning and fuel reduction), as well as rural poverty, complete the context within which to consider the problem of wildland fire.

¹ Study prepared by Patricio I. Sanhueza, CONAF, Chile, psanhuez@conaf.cl

² Cooperación bilateral y multilateral sobre prevención, control y combate de incendios forestales: Subregión Sudamérica., Patricio I. Sanhueza, Agosto 2004

³ Latin America Wildfire Situation: An Outlook. International Wildland Fire Summit, Sydney. Martínez, R., Sanhueza, P., October 2003

The priority areas for fire management in the region must focus on the articulation of mechanisms to strengthen the institutional capability of organizations that are responsible for fire. This is especially true in those countries with weak capabilities or that are having management problems, so that they can comply with international commitments. The development of public policies concerning wildland fire, as well as the development and concrete implementation of National Plans for prevention and fire suppression, is part of the necessities of several countries in the region.

Regulation of the use of fire such as through controlled and/or prescribed burning in agro-silvicultural practices, capacity building of communities and applying the law to infractors is another major challenge for those in charge.

However, when looking at present rise in fire occurrence, one may draw the conclusion that enforcement or tightening of law alone will not solve the fire problem in the long run. Complementary strategies are needed to tie up the local population in various fire management activities. Unfortunately very few projects, except the PROARCO/IBAMA/MMA project in Brazil, and the CONAF/ Citizen Participation in fire prevention project in Chile, have been concentrating on how to involve local communities in fire management. Implementation of Community Based Fire Management (CBFiM) requires the development of an enabling fire legislation and fire policy; when 95 % of all fires stem from various human activities, then naturally as substantial part of fire management activities should be geared towards rising of awareness and training of local communities.

For poor people fire is the only option for land clearing, but unfortunately very few people possess the skills in applying prescribed burning; therefore prescribed burning should form a priority area in silvoagricultural education and training. Foresters alone and fire fighters, cannot change local habits without the assistance from silvoagriculture.

Another priority issue is for countries to achieve that not only after catastrophic events there will be concern on establishing effective actions towards the formulation of plans and programs with sufficient human and material resources to prevent and control forest fires. If this will not be the case, then once again this would prove that the political agendas preferably result from demands and/or pressure, and not from a rational process of evaluation of necessities, values and objectives.

There is considerable informal cooperation among countries in the region without signed conventions or protocols. Cooperation has been developed in capacity building, techniques for fire suppression, use of equipment, education programs, remote sensing, fire information, management techniques, etc. or through transfer of technology, specific exchanges or variable courses. Examples of bilateral cooperative assistance and sharing of resources between countries in forest fire emergencies include Argentina – Brazil; Chile – Argentina; Brazil – Venezuela; and Chile – Bolivia.

The established formal agreements are all of bilateral nature and some of them are:

- Cross-border fire-fighting agreements (Chile – Argentina / Uruguay – Brazil / Argentina – Brazil / Perú – Brazil).
- Memoranda of understanding between the New South Wales Rural Fire Service in Australia with Chile and Brazil; between IBAMA – Brazil and the USDA Forest Service in the United States.
- Collaboration in Fire Management between Spain and Chile, Venezuela and Colombia.
- Training agreement for firefighters between USAID/OFDA/LAC and Ecuador, Paraguay and Venezuela.
- Agreements of collaboration / cooperation / coordination between institutions of the State (ministries, secretariats, provincial governments, armed forces) and others of civil society (firefighting corps, civil defense, NGOs) for the prevention and combat of fires, in all of the countries in the region.
- Strategic alliances with private forest enterprises to prevent and combat fires (Chile, Brazil, Argentina, Venezuela).

In general, there are no reported initiatives and participation of the countries of the region in global forest fire projects. This is a concern, but it is also a challenge. At the moment, the project that stands out is the FAO regional TCP project to support a regional strategy for cooperation in the prevention, control and suppression of forest fires, TCP/RLA/3010. Argentina, Costa Rica, Cuba, Ecuador, the

Dominican Republic, and Trinidad and Tobago have requested FAO to implement this project, and the other countries of the region have subscribed to.

At the same time, an interesting proposed project has been the "Prevent before cure" to be implemented by three countries members of the International Tropical Timber Organization ITTO in Latin America: Bolivia, Perú and Ecuador, under the initiative Global Fire Fight, executed by IUCN and WWF.

Several countries (Colombia, Chile, Venezuela) are participating in the international agreement derived from the UN Framework Convention for Climate Change (UNFCCC) and the UN Convention to Combat Desertification (CCD).

Referring to networking, on 17 June 2004, the Regional South America Forest Fire Network was established by the *Curitiba Declaration*. Since that moment countries in the region initiated a regional dialogue and agreed to implement the Action Plan, the expectatives and concrete activities that are described in the *Declaration*. It is of special interest that the future functioning of the Network be concretized under the umbrella of the FAO in the frame of the regional TCP RLA/3010 and the Global Fire Monitoring Center (GFMC).

Complementary to the *Curitiba Declaration*, the future cooperation should open participation to all kinds of organizations of the civil society (environmental and anti-disaster associations and foundations, consulting firms, and professional specialists), along with private companies and forest protection associations. An agenda of events and virtual meetings should be established as complementation to symposia, congresses, and special seminars organized through the network, to evaluate the progress and/or fulfillment of its participant, who will have to subscribe to a protocol that assures the fulfillment of their compromises offered to the network. .

It is envisaged that there exists a national entity responsible for the overall management and coordination of protection against wildland fires in each country, serving at the same time as visible counterpart in the network to carry out the cooperation. It is necessary to promote the development of public policies, especially in those countries that have not defined the problem or that have insufficient or precarious laws that are disconnected from effective implementation.

It is necessary to normalize records of fire occurrences, damage and causes in order to develop the capacity to analyze and implement a correct plan to prevent and combat fires, in order to develop policies and define correspondent strategies

Prevention, detection and organization of fire suppression methods must be based on one same planification and programation scheme, if an successful management is to be attained. Empirical evidence shows that, when these activities are assigned to different organizations, they have a tendency to develop distinct criteria and stages of preparation, and frequently are competing with each other instead of developing cooperation and synergies.

International commitments in defense of renewable natural resources, care for the environment and sustainable development facilitate the design and establishment of new agreements that, built on this base, will contribute to the protection against forest fires.