

Speech

USDA Forest Service
Washington, DC



Wildland Fire Management's Multiple Dimensions

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Hemispheric Conference on Forest Fires
San Jose, Costa Rica - October 23, 2004

I'm glad to be here today. I'd like to thank the Government of Costa Rica for hosting this conference, and I'd also like to thank the sponsors, the Latin America and Caribbean Forestry Commission and the North American Forest Commission. As U.S. Forest Service Chief, I'm a member of the North American Forest Commission, and after this conference I'm going to our meeting hosted this year by Mexico. I'm really looking forward to that.

I welcome opportunities like this to meet with professionals like Dr. Goldammer and with colleagues like Mr. Jorge Menendez from Argentina, my counterpart here today. These meetings give us a chance to compare notes and figure out how we might work better together across borders and boundaries for our mutual benefit. I value the opportunity to learn from your experience, especially when it comes to wildland fire.

I'm here on behalf of fire managers in Canada and the United States. I'd like to start by putting our fire environment in North America in perspective. Then I'll go into some of the things we're learning about managing the kinds of fires we're getting.

Fire Environment

You're probably generally aware of our fire environment in North America, so I won't say much, except that it is enormously complex and costly. Just to give you some idea:

- Most sites in North America have a natural history of fire that we can trace back for hundreds or even thousands of years. Wherever that's the case, fire has played a key role in shaping the structure, composition, and function of the ecosystem.
- In Canada, the boreal forests burn in huge fires at long intervals. These fires are natural events that function to keep these ecosystems healthy. However, they also put people and property at permanent risk, particularly because so many people are moving from cities into the wildland/urban interface, or WUI, for short. Canada gets thousands of these fires each year, and they burn an average of 2.5 million hectares. Fire suppression costs average about \$400 million per year, but it can vary from a fraction of that to two or three times that.
- In the United States, our biggest fire problem is in dry pine forests in the West. These forests are naturally adapted to frequent low-severity fires, not to the big fires that are typical of most boreal forests. But many of these dry pine forests have become so overgrown and unhealthy that they are now ecologically threatened by big fires. These forests are also getting some of our biggest WUI growth, so the threat is to people and property, as well. Since 2002, five western states have had record fires. In 2000, we had more acres burn than in any year since the 1950s, and in 2002, our fire suppression costs exceeded \$1.6 billion.

I believe that wildland fire is one of the most serious concerns we face in North America and that it will drive much of what we do in natural resource management for quite some time.



Lessons Learned

I want to make three points about what we're learning in this regard.

More Fire Use. First, we are learning that protection strategies for many forests and grasslands require *using* fire, not excluding it. Fire's ecological role means that fire can be the best tool we have to sustain ecosystem health. That can even be true in our boreal forest types, and I'll give an example.

Near Seeley Lake in the State of Montana, there are some of the biggest western larches in the world. They got their start up to a thousand years ago, when low-severity fires were introduced. Unless we carefully burn from time to time, other species come into the understory. Eventually, they will carry huge fires into the overstory and destroy the grove. Seeley Lake also happens to have a lot of homes in the vicinity. We can protect both the ecosystem and the community from huge fires by carefully thinning and burning in the right place at the right time.

More Social Science. That brings me to my second point: We need to better integrate the social sciences into our fire management policies and strategies. We are simply going to get big, dangerous fires in many of our forest types in North America. It's natural. What isn't natural is that so many of our forests are now filled with homes and communities, like at Seeley Lake.

Technically, we know what to do. Our science and technology have given us a lot of the means to protect people in the WUI. But that might not matter. If folks near Seeley Lake and elsewhere don't like the smoke, then we aren't going to get their agreement to use beneficial fire. And if they don't want government interference with what they see as natural processes, then we might not be able to remove vegetation to control fuels. Maybe most importantly, if people want to live in houses made of flammable materials and secluded by thick trees, then we aren't going to be able to protect them, no matter what. They've got to take more responsibility.

That's why we need more social science and better communication. We've got to reach folks in the WUI, understand where they're coming from, and get them to understand what they've gotten themselves into by moving into the WUI. We've got to get people in the WUI to take more responsibility for themselves so we can better integrate our risk management.

Less Focus on Suppression. If our fire problem has social and ecological dimensions, then it's more than just a suppression problem. That's my third point: Suppression isn't enough. In the early days of our fire organization in the United States, we tended to look at fire mainly as a technical problem of fire suppression. We thought that if only we had more firefighters and more equipment, then we could quickly control almost every fire.

And we did, but it didn't solve our problem. By the 1980s and 1990s, we had a fantastic fire organization in both Canada and the United States. Today, we quickly put out something like 97 or 98 percent of our wildfires all across North America. But the 2 or 3 percent that escape can

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just overwhelm us. Fewer than 1 percent of our fires account for about 85 percent of our suppression costs and close to 95 percent of our total burned acres.

Southern California is a perfect example. The combined operating budgets for wildfire preparedness in California, between federal, state, and local jurisdictions, is over \$3 billion per year. That gives California the largest fire department in the United States, maybe the largest in the world. By any measure, our fire services in California have enormous capacity, but every few years they get overwhelmed.

Last fall, we got over 900 fires within just 10 days in southern California. Fourteen of them became large incidents. The fires burned close to 300,000 hectares, destroyed 3,600 homes, and killed 24 people, including one firefighter. Suppression costs alone exceeded \$200 million, with billions of dollars more in damage to infrastructure, loss of property, and disruption of commerce. All this in a place with some of the best firefighting capacity in North America.

That's because our fire problem isn't just a suppression problem. It's also a social and ecological problem. Southern California has some of the most volatile fuel types in the world. It also has an enormous and growing population that wants the landscape managed for homesites, recreation, visual quality, and endangered species habitat—anything but reduced fire risk. We're emphasizing suppression while virtually ignoring the land's inherent fire risk. It's no wonder we get overwhelmed: We're not managing the land to address the dynamics of volatile fire regimes.

What To Do

What's the solution? Yes, we need sufficient suppression resources and good suppression strategies. But we also need to strike a better balance between our suppression response and our pre- and postfire activities. For that, we need to involve local communities. The most effective way to address fire problems is by involving local communities in addressing their own needs in a way that is consistent with the ecological role of fire.

That needs to be done on several fronts:

- First, the fuels front. Consistent with the local fire regime, we need to involve communities in plans and projects for reducing fuels and restoring healthy ecological conditions, especially near homes, municipal watersheds, and social or ecological values at risk.
- Second, the home front. We need to get individuals and communities to take responsibility for protecting their properties from fire by using safe building materials and by clearing an area around their homes. We also need to get people to prepare themselves for what to do in case of an emergency.
- Third, the postfire recovery front. We need to involve communities in plans and projects to rehabilitate areas damaged by fire, especially municipal watersheds and ecologically sensitive areas.

I strongly believe that fire managers need to move beyond a focus primarily on suppression. We need to strike a better balance by bringing in more of the social and ecological dimensions of

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wildland fire management. We need a fire management strategy that incorporates local needs and builds local capacity in the context of the fire-adapted ecosystems we live in.

Three Points

In closing, I'd like to endorse several points made by the North American Forest Commission's Fire Management Working Group. It's a professional association of fire managers that has been building partnerships between Canada, Mexico, and the United States since 1962. The Group just met in Chihuahua, Mexico, and I'd like to repeat three points made at the meeting because I think they dovetail with my remarks:

- First, fire management today isn't simply a technical matter of fire suppression. Our commitment to sustainability has made fire management much more complex. It involves all kinds of social and human dynamics as well as complex questions about the ecological role of fire. If we're going to adequately address these issues, then we're going to need new and more effective kinds of international cooperation in fire management operations, policy, and research and development.
- Second, we know that fires are growing more damaging and worrisome in North America. Drought has something to do with it, as do changing demographics and the growth of the WUI. Climate change also contributes to the problem. For example, large parts of the western United States experienced several decades of above-normal precipitation and a lot of forest growth. Now that we're back to normal drier conditions, we're seeing explosive fire activity. But whatever the cause, the key is restoring forest health.
- Finally, we need a balanced approach to fire management. Yes, we need a strong and effective fire suppression organization. But we also need to engage the public in the principles of fire prevention and hazard mitigation. We need a strategy based on innovative approaches to risk sharing, and we need for property owners to take responsibility for getting involved.

Unprecedented Gathering

In closing, I'd like to salute everyone here. This meeting today is unprecedented in this hemisphere. I believe that it's long overdue, and I'd like to see more of this kind of thing, because this issue is critical for all of us.

We on the North American Forest Commission endorse the outcomes from last October's Fire Summit in Sydney, Australia. We also endorse the goals and work of the Global Wildland Fire Network. We believe that today's meeting constitutes one of the regional conferences called for by the Sydney Summit. I hope and trust that it will lead to further collaboration in an effort to reduce the fire risk and to restore fire-dependent ecosystems for generations to come.