

0726

Considerations in Developing a National Forest Fire Danger Rating System

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Effective forest-fire management is based on sound knowledge of the potential for ignition, behavior, difficulty of control, and impact of fire in a given situation. Forest-fire danger-rating systems provide a framework for organizing and integrating scientific knowledge and operational experience, and they are a cornerstone of modern fire management.

The Canadian Forest Fire Danger Rating System (CFFDRS) is one of the most well developed and widely applied schemes. This paper suggests how experience with the CFFDRS can inform the development of danger-rating systems in other forest or wildland environments.

There are four key elements to developing and realizing a national forest-fire danger-rating system:

- A sustained program of scientific research to develop a system based on relationships between fire weather/fuels/topography and fire occurrence/behaviour/impact that are appropriate to the fire environment.
- Development of the technical infrastructure to gather and process fire weather data and to disseminate fire weather forecasts, information about fire-danger, and predictions of fire behavior within operational agencies.
- Technology transfer, and training in the use of fire-danger information in fire operations, which are appropriate to the needs and capabilities of operational agencies.
- Development of institutional mechanisms to foster cooperation and communication between fire-management and research agencies; to share resources; and to set common standards for information, resources and training.

Most important, a common vision and a sense of common cause are needed. Where the CFFDRS has been implemented in other countries, technological aspects are often over-emphasized, while the importance of human and institutional factors is overlooked.

0789

Managing Boreal Forest Insect Disturbances for Sustainability

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The forestry sector in Canada makes a significant contribution to the wealth of the nation. Of the forested area, 82% is occupied by the boreal forest, much of which remains uncut. To manage this forestry resource sustainably we