# New Approaches to Forest Fire Management at an Ecoregional Level in the Far East of the Russian Federation

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**Extended Abstract**

The Russian Federation has requested assistance from the World Bank and the Global Environment Facility (GEF) with the preparation of the subject project that would improve fire management in non-economically accessible forested areas of high biodiversity value in the southern part of the Russian Far East. This project (estimated to cost US$5 million equivalent) would be an addition to the Sustainable Forestry Pilot Project that is already under implementation by the Russian Federation using the financing of a World Bank loan of US$60 million. The Project would cover all protected areas and other forest areas managed for conservation purposes in the globally important Amur-Sikhote-Alin Ecoregion (including Primorsky Kray, Khabarovsk Kray, and Jewish Autonomous Oblast).

The project is expected to support the following types of activities in the Ecoregion:

(1) *Inclusion of existing protected areas and protection as elements in the integrated forest fire management system* through: (a) classification and zoning of protected areas according to fire occurrence and fire protection intensity; and (b) revisions in regional regulations and methodologies pertaining to fire management in protected areas, including planning of forest land structure and functions, fire danger assessment and forecasting methods, rapid assessment of fire dynamics from economic and ecological viewpoints and prediction of economic losses, establishment of a regulatory framework for community and enterprise resource mobilization to fight forest fires.

(2) *Improving federal and regional arrangements for integrated forest fire management* through: (a) zoning of forest lands by protection intensity and normative costs of forest fire prevention and fighting; (b) procedures for early warning based on anticipated weather events, and of timely planning and distribution of funds; (c) procedures to raise funds in catastrophic fire situations; and (d) procedures to reimburse fire fighting costs, mobilized resources and workforce. Financial management aspects of this component would be coordinated with parallel work on forest policy and planning reforms at federal and regional levels financed through the associated IBRD loan.

(3) *Increasing public awareness of forest fire ecology and educating the local population in principles of fire management and prevention* through: (a) broad public awareness campaigns promoting project objectives and implementation through affordable district newspapers and local radio; (b) consultations with local stakeholders (district administrations, environmental enforcement agencies, public organizations, communities) to assess forest fire danger and its

causes, public opinion surveys; (c) promotion of voluntary community forest patrols in high-priority territories; (d) continuous environmental education with the main focus on schoolchildren, active collaboration with children's ecological organizations; and (e) public promotion of fire management principles through Public Service Announcements, visual advertisements and posters, media and public organizations campaigns. Public awareness campaigns under this component would be developed and implemented using coordination and parallel financing arrangements with the USAID-funded Forest Resources and Technology (FOREST) Project.

(4) *Strengthening institutional and management capacity of the fire management service* through: (a) strengthening the regional system of Forest Fire Centers and territorial units which would be in charge of management, administration, information, fire prevention and control and other issues; (b) upgrading processing of space and ground fire information, forest fire monitoring and forecasting, communication and information support systems and quick-response fire management.

(5) *Strengthening preventive fire management in the protected forest areas* through: (a) improved operation of ground-based fire prevention and fighting, including systems of look-out stations in the mountainous terrain, teledetection stations, pilot development of fire breaks forest shelterbelts composed of fire resistant tree and shrub species in the vicinity of protection forests; (b) appropriate computer equipment for forest management and protected areas offices; and (c) mandatory minimum sets of fire management tools for local forest management units and protected areas. This bulk of the fire detection and fire fighting equipment (the portion designated for Khabarovsk Kray) under this component would be financed through the associated World Bank-financed Sustainable Forestry Pilot Project.

(6) *Improving professional and community-based fire prevention and fighting technologies* through: (a) intensification of ground patrolling by professional and community-based mobile groups equipped with fire fighting tools; and (b) application of differentiated techniques to professional and community-based fire management based on area accessibility, pyrological features, fire behaviour forecasts, ecological and economic implications of a fire, social and environmental value of a forest exposed to fire; and the characteristics of forested areas neighboring the protection forests. This bulk of the fire patrolling and mobile fire fighting equipment (the portion designated for Khabarovsk Kray) under this component would be financed through the associated World Bank project.

The ‘intellectual’ launch of the project design would take place during the international workshop entitled “New approaches to forest protection and fire management at an ecoregional level” that is jointly organized by the Russian Government and the World Bank in Khabarovsk, Russia on September 9-12, 2003. The objective of the workshop is to share knowledge and information and develop detailed recommendations for design, planning and implementation of an ecoregional framework for comprehensive forest fire management in the south of the Russian Far East. The workshop recommendations would be implemented in the framework of the proposed GEF project in the Amur-Sikhote-Alin Ecoregion. New techniques of fire management experimentally tested in this ecoregion would be subsequently replicated in other fire-prone regions of Russia.

A key role in the project design during the workshop would be played jointly by eminent Russian specialists and experts from the US and Canadian Forest Services, US Agency for International Development, Global Fire Monitoring Center, Global Observation of Forest Cover (GOFC) Network, and World Wide Fund for Nature (WWF). Preliminary results of the workshop would be presented at the World Forestry Congress in Canada (September 2003) and the Global Wildland Fire Summit in Australia (October 2003) and would therefore influence formulation of Russia's priority plans for bilateral and multilateral international cooperation in this area. The workshop will be attended by about 100 Russian and international specialists, including experts in fire ecology and behaviour, forest monitoring and mapping, forest management practitioners, representatives of the Ministry of Natural Resources, Ministry of Emergencies, Hydrometeorological Service, Russian Academy of Sciences, regional and local governments of the Far-Eastern Federal District, representatives of nongovernmental and international organizations.

The workshop program includes an introductory plenary session for overview and analytical presentations, four parallel working groups for an in-depth review of key topics (forest fire information and data processing, new technologies in fore fire management, improvements of institutional schemes for regional fire management and stakeholder roles, new techniques for combating illegal logging), and a final plenary session to review cross-cutting themes and discuss recommendations for inclusion in the GEF project and international cooperation programs, including establishment of adequate interaction with a growing network of regional-level wildland fire management programs in other parts of the World.

As the planning workshop would take place at a time when the proceedings of the 3rd International Wildland Fire Conference are already being printed, the findings and recommendations of the workshop regarding the proposed design of an ecoregional fire management project in the south of the Russian Far East will be presented during the conference and transmitted to the participants of the International Wildland Fire Summit.