Fire Management needs assessment and priority actions

In the introduction of the guidelines it is said that the Principles and Strategic Actions can serve as a checklist to strengthen policies, legal and regulatory frameworks, plans and procedure. To make this easier the guidelines have been translated to the attached questionnaire format. We wish you to fill the questionnaire from your own organization/country point of view.

The first step is to go though both parts of the questionnaire (Principles and Strategic Actions), marking into the boxes with "X" how well the Fire Management issues are addressed in your organisation/country (*Adequately addressed, Needs attention, Needs substantial attention* or *Not applicable*).

Then, from your perspective, select the Principles or/and Strategic Actions, which according to you are the priority actions to improve fire management in your context. Please complete the needs and actions summary table that will detail the problem, priority action and action by whom.

Name: ....

Institution:

....

Country:

....

Contact information:

....

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....

Priority needs and needed actions:

Completed by;_____ Institution Name:_____ Country:_____ Date:_____

Problem	Priority Action	Actor	Additional Comment

Multi – Stakeholder Needs Analysis: Principles

Social and cultural Principles				
Principle 1. Sustainable livelihoods **The appropriate use and management of fire will promote sustainable livelihoods.**	Adequately addressed	Needs attention	Needs substantial attention	Not applicable
1. Are unplanned fires that threaten assets and sustainable livelihoods actively suppressed?				
2. Is the appropriate management and responsible use of fire for sustainable silviculture, agriculture, livestock and watershed management and biodiversity conservation allowed and promoted (while balancing these with the need to protect civilians, communities, organizations and governments from the unwanted and harmful effects of fire)?				
3. Are fuel-reduction programmes planned and undertaken as cost-effective methods for fire prevention and reduced fire risk?				
4. Is the use of planned fire across broad landscapes promoted to restore or maintain natural fire regimes, facilitate land management and reduce the risk of large-scale destructive wildfires?				
5. Are natural fires allowed to burn within an appropriate range of frequency, season and intensity in fire-dependent ecosystems for economic and social benefits, as well as for maintaining habitats and reducing the cost of suppressing unwanted fires?				
6. Is effective monitoring and evaluation of the impacts of planned and unplanned fires promoted?				
Additional comments:				

Principle 2. Human health and security **Human health and security will be improved by minimizing the adverse effects of fire.**	Adequately addressed	Needs attention	Needs substantial attention	Not applicable
1. Is safety provided for firefighters, fire managers and public in all fire activities?				
2. Is an effective fire prevention programme (minimizes the number and impacts of unwanted, destructive fires) maintained and supported?				
3. Is a fire danger rating system developed (or adapted to an existing one, in conjunction with reliable weather forecasting), to provide hazard and risk assessments to agencies, landowners and communities?				
4. Are early detection and warning systems utilized to reduce the health and security impacts of wildfire?				
5. Is education and training provided to at-risk communities and to communities of interest?				
6. Are community-based risk-reduction activities conducted during all stages of fire-management activity: pre-fire, during fire events and post-fire?				
7. Are the negative and positive effects of fire balanced on communities when utilizing fire as a land-management tool?				
8. Are communities empowered to accept responsibility for the management of fire and its effects on their health, safety and welfare?				
Additional comments:				
Principle 3. Traditional uses of fire **The traditional uses of fire on the lands of indigenous peoples and traditional rural communities should remain as a practice for those communities and be adapted to the current environment.**				
1. Is the traditional use of fire continued, provided that any potential negative impacts on communities and resources are prevented or mitigated?				
2. Is the traditional lore and knowledge of indigenous and traditional peoples gathered and maintained and are their practices integrated into a modern fire-management programme?				
3. Is a range of landscapes and environments (that provide diversity of habitats, species, resources and opportunities for recreation, commerce, community enjoyment and cultural and religious practices) maintained?				
Additional comments:				

Economic Principles

	Adequately addressed	Needs attention	Needs substantial attention	Not applicable
Principle 4. Protecting lives and assets **The destructive impacts of unplanned fires on lives, property and resources should be minimized, if not totally prevented.**				
1. Is the likelihood of unwanted, damaging fire minimized or prevented through knowledge, training, participatory planning and preparation, and appropriate suppression and mitigation systems?				
2. Are the unwanted and unplanned fires responded promptly and safely?				
3. Is fire actively managed to protect lives, property and resources during fire suppression, including the use of fire as a suppressive agent?				
4. Are operations done in an environmentally sensitive manner while suppressing fires and restoring altered or damaged lands in order to lessen severe, long-term impacts?				
5. Is the planning, construction and location of new buildings and adjacent vegetation influenced to minimize the risk of damage from fires, and discouraging inappropriate development in fire-prone ecosystems?				
6. Is the planning and implementation of fire-prone activities in agriculture, forestry and other industries influenced in order to minimize the risk of damage from unplanned fires to lives, property and resources?				
7. Is allocating resources based on the probability of ignition and expected fire behaviour, and balancing the costs of fire prevention, preparedness and suppression?				
Additional comments:				
Principle 5. Economic impact **An effective and efficient fire-management programme requires a balance between the benefits society receives from the use of fire and the costs, damages or undesirable impacts caused by unwanted fire.**				
1. Are ecosystem benefits, costs and economic outputs fully accounted from the use of fire for resource management and the public good?				
2. Are benefits of mitigating the unwanted effects or damages to lands and resources from unwanted fires identified?				
3. Are all fire-management strategies and fire-use programmes developed and implemented in order to maximize both the ecological and environmental benefits and the economic return?				
4. Are methodologies and standards developed for quantifying positive and negative fire effects and assessing fire damage (including effects on non-economic or non-commodity values, as well as on other social and environmental values)?				
Additional comments:				

Environmental Principles				
Principle 6. Interactions between climate change and fire Principle 6. Interactions between climate change and fire **The interactions of climate change with vegetation cover and fire regimes should be understood and appropriately considered in the planning and implementation of fire use.**	Adequately addressed	Needs attention	Needs substantial attention	Not applicable
1. Are the impacts of regional climate change on ecosystem properties and fire regimes defined?	🟩	🟨	🟥	⬜
2. Are the fire-management plans and policies modified to take into account observed and anticipated changes in fuel and vegetation type, burning conditions and additional fire risk as a result of climate change?	🟩	🟨	🟥	⬜
3. Are forest and other fuels utilized for energy production, with the dual goals of reducing the threat from fire and the consumption of fossil fuels?	🟩	🟨	🟥	⬜
4. Is the storage of carbon maximized in ecosystems – especially during restoration of degraded ecosystems – without increasing the likelihood of unwanted fire risk and promoting the regeneration of carbon sinks?	🟩	🟨	🟥	⬜
5. Are the greenhouse gas emissions minimized that occur as a result of large-scale, unwanted fire by restoring and maintaining ecologically appropriate fire regimes?	🟩	🟨	🟥	⬜
6. Are the short- and long-term consequences of fire-induced vegetation depletion, such as soil erosion, landslides, floods, waterway pollution and desertification minimized and mitigated?	🟩	🟨	🟥	⬜
Additional comments:				
Principle 7. Fire effects on ecosystems **Fire should be managed in an environmentally responsible manner to ensure properly functioning and sustainable ecosystems into the future.**				
1. Are fire-sensitive ecosystems protected?	🟩	🟨	🟥	⬜
2. Is it recognized that strategically placed, planned burning with some short-term negative environmental impacts may be necessary for long-term landscape and community asset protection?	🟩	🟨	🟥	⬜
3. Are Principles of environmental management applied and the prevention of environmental disturbances resulting from fire-management activities cared?	🟩	🟨	🟥	⬜
4. Are the planning fire preparedness and suppression operations within a holistic landscape view that considers archaeological, historical, cultural and traditional heritage values?	🟩	🟨	🟥	⬜
5. Is the re-establishment of ecological processes (with the restoration of native flora and fauna that may have been compromised) damaged or eliminated by fire-suppression actions promoted?	🟩	🟨	🟥	⬜
6. Is the introduction and spread of pest or invasive plants and animals, plant diseases, insect pests and biological contaminants after fires or fire-suppression activities minimized and prevented?	🟩	🟨	🟥	⬜

	Adequately addressed	Needs attention	Needs substantial attention	Not applicable
7. Are planned burns conducted in a manner that minimizes the spread of unwanted alien species and promotes or re-establishes natural or other preferred species?				

Additional Comments:

Institutional Principles

	Adequately addressed	Needs attention	Needs substantial attention	Not applicable
Principle 8. Legislation and governance **All fire-management activities should be based on a legal framework and supported by clear policy and procedures.**				
1. Are the Principles and Strategic Actions used as a basis for developing and implementing national or local legislation?				
2. Are the guidelines for planned burning that fit within the legal framework and policies developed?				
3. Is it recognized that implementation of the Strategic Actions may impact on, or be impacted by, other sectors (such as forestry, agriculture, conservation, the environment, air-quality management, climatology, hydrology and broader land-use management) and emphasized coordination with those sectors?				

Additional comments:

	Adequately addressed	Needs attention	Needs substantial attention	Not applicable
Principle 9. Multistakeholder approach **Successful fire management requires participatory approaches to leadership and management that are appropriately shared by public and private landholders, the fire services and communities of interest.**				
1. Are the incidences of unwanted, human-caused fires minimized?				
2. Are the integrated land-management objectives such as safety and environmental and resource management met?				
3. Is the leadership role of land managers in fire and other land-use issues recognized?				
4. Is a coordinated approach to effective fire management ensured in areas where multiple organizations and stakeholders have responsibilities and interests in the fire programme?				
5. Is the knowledge, leadership and expertise of local citizens and community groups recognized and used?				
6. Are the community members at the local, sub- national, national, regional and international level involved to ensure that processes are open and accessible to people of different backgrounds and cultures (especially indigenous and traditional rural communities)?				

Question	Adequately addressed	Needs attention	Needs substantial attention	Not applicable
7. Is cross- sectoral participation encouraged in the development and implementation of plans, including community members, land managers, fire agencies, emergency services, enforcement and medical agencies, non-governmental organizations and the media?				
8. Is it acknowledged that fire-management plans and fire occurrence at the local level can have international and global impacts on the environment?				
9. Are the different backgrounds and roles of the urban, structural fire services and the land-management and rural fire services understood, and are each of them utilized to the best advantage, based on the strengths of each?				
10. Are the volunteer groups, community members and rural workers trained and equipped in order to enhance their role and effectiveness in fire-management activities?				
Additional comments:				

Enhanced fire-management capacity

Principle 10. Cooperation **Few nations and no single agencies or communities have the ability to manage every situation. As fires routinely affect multiple jurisdictions, agencies should develop cooperative arrangements to mitigate transboundary impacts.**	Adequately addressed	Needs attention	Needs substantial attention	Not applicable
1. Is the use of common terminology, systems and standards encouraged to enhance international cooperation?				
2. Is an ongoing exchange of knowledge, technology and resources promoted to facilitate rapid international response to fires?				
3. Is there participation in international organizations, networks, fora and activities to enhance domestic and international capacity and rapid international response?				
4. Are the available guidelines (and examples of successfully implemented agreements as a framework for the development of binding and non-binding international instruments) used?				
Additional comments:				

Principle 11. Knowledge transfer **Access to and appropriate application of knowledge are essential in all fire management activities.**	Adequately addressed	Needs attention	Needs substantial attention	Not applicable
1. Is there engagement in quality scientific research for the creation of new knowledge and confirmation of the utility of firefighters' practical knowledge in order to support the creation or improvement of policies, regulations, guidelines and practices?				
2. Is a two-way flow of information developed so that local knowledge of the environment and the historical uses of fire can be considered and used by managers and researchers?				
3. Is appropriate knowledge and skills development provided for personnel involved in fire activities to render them competent for their roles and tasks?				
4. Is effective communication incorporated and community education provided on fire-management issues in order to enhance community preparedness and response?				
5. Is traditional, local knowledge collected and is that knowledge used in appropriate aspects of the fire-management programme?				
6. Is there communication to the members of local communities and communities of interest, that properly applied and managed fire can result in positive ecological, cultural and economic benefits?				
7. Are scientific, research and technical materials translated and made accessible, at the appropriate technical level, to local managers, firefighters and communities?				

Additional comments:

Multi – Stakeholder Needs Analysis: Strategic Actions

1. Fire and resource management planning	Adequately addressed	Needs attention	Needs substantial attention	Not applicable	External support needed	
					yes	no
1. Are all fire-management plans and activities based on a clear and comprehensive policy, legal and institutional framework?	🟩	🟨	🟥	⬜	🟩	🟥
2. Are plans prepared at an appropriate level of detail for every aspect of fire management (including use, prevention, fuel management, detection, initial attack, large-fire suppression and restoration)?	🟩	🟨	🟥	⬜	🟩	🟥
3. Is a policy established that sets the safety of firefighters, fire managers and the public as the highest priority?	🟩	🟨	🟥	⬜	🟩	🟥
4. Is a process developed to determine in advance of a fire, who will assume the lead role and duties (in areas where multiple agencies or organizations have fire-management responsibilities)?	🟩	🟨	🟥	⬜	🟩	🟥
5. Do resource-management plans include analysis of the actions that increase or decrease the risk and hazards affecting 1. fire behaviour, 2. fire damage or benefit, 3. impacts on the safety of firefighters, fire managers and the public?	🟩	🟨	🟥	⬜	🟩	🟥
6. Are plans based on the types of ecosystems, potential fire effects, fire regimes, and social, economic and environmental values?	🟩	🟨	🟥	⬜	🟩	🟥
7. Do plans provide (for infrequent but potentially damaging events) analysis, planning and identification of the resources and potential operational actions required?	🟩	🟨	🟥	⬜	🟩	🟥
8. Are plans based on climate, realistic weather forecasts and the effect on fire behaviour and suppression effectiveness and include maps indicating forecast fire danger?	🟩	🟨	🟥	⬜	🟩	🟥
9. Have organizations, agencies, governments and communities developed a process for involving local communities, communities of interest and others when preparing resource- and fire-management plans?	🟩	🟨	🟥	⬜	🟩	🟥
10. Do plans provide (for a system of monitoring and evaluation) a feedback process for amending or adapting the plans based on evaluations or changing conditions?	🟩	🟨	🟥	⬜	🟩	🟥
Additional comments:						

2. Fire management in natural or protected areas and reserves	Adequately addressed	Needs attention	Needs substantial attention	Not applicable	External support needed	
					yes	no
1. Do fire plans and guidelines identify the unique character of and objectives for the area (considering the role that fire plays in restoring or maintaining that special character)?						
2. Are communities and people outside the area taken into account (in areas that require periodic fire to restore or maintain the character of the area)?						
3. Is consideration given to using appropriate fire-management actions that will not adversely impact surrounding areas, assets or sustainable livelihoods?						
4. Are plans, guidelines and operational procedures developed with a view to mitigating any unwanted or damaging impacts from planned burning in these areas?						
5. Is care taken to ensure that invasive plants or diseases are not introduced through fire-suppression actions and the use of fire equipment and machinery?						
6. Are suppression tactics planned and implemented with a view to mitigating damaging effects (on the protected area from crews, equipment and suppression actions), when fires occur in fire-intolerant areas (or when a particular fire incident is uncharacteristically severe or damaging)?						
7. Where fire-dependent natural areas or reserves are located adjacent to valuable commercial or agricultural areas, are detailed plans developed to ensure that the unique character and value of the areas can be maintained, while limiting the impact on adjacent areas?						
Additional comments:						

3. Fire awareness and education					yes	no
1. Are fire awareness and educational programmes developed and targeted to specific audiences and communities?						
2. Are programmes sensitive to the cultural and social norms of the community (including the application of fires to agricultural, forestry, biodiversity and traditional uses or to other basic needs)?						
3. Are fire awareness and educational materials gender sensitive and reflect local literacy levels (including oral presentation where printed material or local language barriers limit effective communication)?						
4. Are age-appropriate information and educational materials developed cooperatively (by technical experts and educational specialists and provided to all levels) introducing ecological and fire-management concepts into local schools?						
5. Are primary and secondary schools, universities, non-governmental organizations and other institutions encouraged to develop communally and ecologically appropriate fire-management programmes for teachers and other educators (based on local conditions and beliefs)?						
Additional comments:						

4. Fire prevention	Adequately addressed	Needs attention	Needs substantial attention	Not applicable	External support needed	
					yes	no
1. Are comprehensive prevention plans developed in areas in which objectives require minimizing the number of fires and the area burned?	🟩	🟨	🟥	⬜	🟩	🟥
2. Do prevention plans take into account traditional uses of fire, be based on laws or regulations restricting fires and involve local community leaders and organizations?	🟩	🟨	🟥	⬜	🟩	🟥
3. Is data collected on a monthly and annual basis (on frequency, specific causes and locations of human-caused fires, reasons for starting the fires, and area burned) in order to establish an effective prevention programme?	🟩	🟨	🟥	⬜	🟩	🟥
4. Do fire-prevention programmes include information on the need to use and manage fire in certain situations?	🟩	🟨	🟥	⬜	🟩	🟥
Additional comments:						

5. Fire danger rating and early warning systems					yes	no
1. Has country or organizations established a fire danger rating system or adapted an existing system to the local environment, based on land cover, vegetation and daily weather data?	🟩	🟨	🟥	⬜	🟩	🟥
2. Have countries or regions installed a national or regional early warning system, using existing, demonstrated science and technologies and based on a local fire danger rating system?	🟩	🟨	🟥	⬜	🟩	🟥
3. Has an information network been developed to provide reliable early warning of fire danger quickly to local authorities, landowners and communities?	🟩	🟨	🟥	⬜	🟩	🟥
Additional comments:						

6. Fire preparedness, including technical training	Adequately addressed	Needs attention	Needs substantial attention	Not applicable	External support needed	
					yes	no
1. Do preparedness plans include all activities to be undertaken prior to the start of a fire?	🟩	🟨	🟥	⬜	🟩	🟥
2. Are safety considerations, both for firefighters and the public, a key component of any preparedness plan?	🟩	🟨	🟥	⬜	🟩	🟥
3. Are plans and implementation based on an effective and cost-efficient mix of resources and organizations?	🟩	🟨	🟥	⬜	🟩	🟥
4. Do plans take ecological considerations into account, such as the impact of suppression actions on the environment and the role of fire in the ecosystem or in cultural areas?	🟩	🟨	🟥	⬜	🟩	🟥
5. Do plans include processes and procedures to assess risk and hazard and to determine appropriate response and mitigation actions?	🟩	🟨	🟥	⬜	🟩	🟥
6. Are plans based on predicted fire risk, and staffing and availability levels identified (that correspond to the level of risk)?	🟩	🟨	🟥	⬜	🟩	🟥
7. Do plans assess the capabilities of remote communities and individuals living in outlying areas to protect their own assets and assist fire services (in all phases of fire management)?	🟩	🟨	🟥	⬜	🟩	🟥
8. Is all training appropriate to local ecological, social and political conditions and delivered to the same standard for full-time, paid, volunteer or other rural workers (for the expected fire characteristics)?	🟩	🟨	🟥	⬜	🟩	🟥
Additional comments:						

7. Pre-fire-season activities					yes	no
1. Do all parties (to an agreement) hold an annual pre-fire-season meeting to review the agreement and discuss changes and improvements to the annual operating plan?	🟩	🟨	🟥	⬜	🟩	🟥
2. Are civilians, collaborators and other affected members of the public informed of plans and procedures that provide for or enhance public safety?	🟩	🟨	🟥	⬜	🟩	🟥
3. Are arrangements with landowners established if access through their property might be required for fire-management activities (including fire detection)?	🟩	🟨	🟥	⬜	🟩	🟥
4. Are agreements concluded with utilities, transportation agencies and other sectors that might be damaged by fire or fire-suppression actions (These include actions to be taken by the collaborators in support of the fire-suppression effort or to protect firefighters and the public)?	🟩	🟨	🟥	⬜	🟩	🟥
Additional comments:						

8. Fire detection, communications and dispatching	Adequately addressed	Needs attention	Needs substantial attention	Not applicable	External support needed	
					yes	no
1. Does a robust fire detection system use an appropriate combination of remote sensing, established land- or water-based locations, aerial routes and private citizen and rural community networks?	🟩	🟨	🟥	⬜	🟩	🟥
2. Is a public communications system in place for 1. the reporting of fires by private citizens and agency personnel and 2. for alerting managers, supervisors, landowners and citizens?	🟩	🟨	🟥	⬜	🟩	🟥
3. Is a dispatch and communications system in place 1. to determine the appropriate response to a reported fire, mobilize and support initial-attack and backup fire-suppression resources, and 2. provide appropriate information to responders, volunteers, landowners and others involved in the incident response?	🟩	🟨	🟥	⬜	🟩	🟥
4. Is a communications plan developed and translated into local languages to inform the public of threats and potential severe conditions (and to provide prevention messages)?	🟩	🟨	🟥	⬜	🟩	🟥

Additional comments:

9. Initial attack/action					External support needed	
					yes	no
1. Is the initial-attack organization properly trained, equipped, supported and staffed to meet local requirements?	🟩	🟨	🟥	⬜	🟩	🟥
2. Are all initial-attack actions based on the resource, cultural, economic and ecological objectives and policies for the area (and include the appropriate use of tactics and equipment)?	🟩	🟨	🟥	⬜	🟩	🟥
3. Does the initial-attack organization utilize local resources (in order to build support within the community for fire-management policies and plans and to gain from local knowledge and experience)?	🟩	🟨	🟥	⬜	🟩	🟥
4. Does the initial-attack organization have access to communications systems to receive timely information on fire starts, locations and status (from official sources and from the public)?	🟩	🟨	🟥	⬜	🟩	🟥
5. Is the initial-attack organization trained and prepared for the transition activities required when fires escape and become larger (requiring large-fire suppression strategies and tactics to be formulated and applied across the incident)?	🟩	🟨	🟥	⬜	🟩	🟥
6. Based on the requirements of the legislative framework, is the initial-attack organization 1. prepared for non-fire activities, such as protecting private citizens and directing evacuation, and 2. is it trained in rescue and emergency medical procedures?	🟩	🟨	🟥	⬜	🟩	🟥
7. Is the initial-attack organization trained to collect data and prepare evaluations and reports in order to improve organizational effectiveness and to work with the media in keeping citizens informed?	🟩	🟨	🟥	⬜	🟩	🟥

Additional comments:

10. Large-fire suppression and management	Adequately addressed	Needs attention	Needs substantial attention	Not applicable	External support needed	
					yes	no
1. Are plans and procedures established for large-fire suppression based on expected size, duration and complexity?	🟩	🟨	🟥	⬜	🟩	🟥
2. Is an extensive process in place to gather intelligence and information on all aspects of a large fire in order to ensure effective planning, strategy formulation and community involvement?	🟩	🟨	🟥	⬜	🟩	🟥
3. Is a versatile and expandable management system, such as ICS, used to manage fires of all sizes and complexities (in order to minimize confusion and risk during transition periods)?	🟩	🟨	🟥	⬜	🟩	🟥
4. Are pre-fire-season agreements prepared that provide for assistance during large fires when local resources are fully committed.	🟩	🟨	🟥	⬜	🟩	🟥
5. Is a process of review, evaluation and training in place (so that personnel recognize the conditions under which a large fire is likely to occur and ascertain that prompt and adequate steps are taken in anticipation of the event)?	🟩	🟨	🟥	⬜	🟩	🟥
6. Do plans contain provisions for evaluating large fires to determine if some or all of the fire can be managed in a manner that benefits the ecosystem, reduces the risk to fire-suppression personnel and minimizes costs?	🟩	🟨	🟥	⬜	🟩	🟥
7. Do plans include risk analysis of the probability and consequences of failure in meeting plan objectives?	🟩	🟨	🟥	⬜	🟩	🟥

Additional comments:

11. Managing multiple incidents					yes	no
1. Prior to the start of the fire season, are plans developed for the management (provide resource-allocation, prioritization and other transboundary actions required during multiple incidents)?	🟩	🟨	🟥	⬜	🟩	🟥
2. Is a group of senior management personnel established (representing each jurisdiction involved to decide protection and resource-allocation priorities through coordinated management direction and policy implementation)?	🟩	🟨	🟥	⬜	🟩	🟥
3. Is consideration given to the possibility that additional fires will start and to allocation of suppression resources (to reduce the potential of additional large and damaging fires occurring) in critical areas?	🟩	🟨	🟥	⬜	🟩	🟥
4. Have the agencies, groups and other organizations involved acquired (in all jurisdictions and in response to any type of fire or other emergency) the experience to effectively use the ICS system in transboundary and multiple fire situations?	🟩	🟨	🟥	⬜	🟩	🟥

Additional comments:

12. Fuel management	Adequately addressed	Needs attention	Needs substantial attention	Not applicable	External support needed	
					yes	no
1. Is a fuel-management programme part of a complete fire-management programme?	🟩	🟨	🟥	⬜	🟩	🟥
2. Does a fire-management programme include fuel-treatment activities (to facilitate effective fire suppression and protection of communities and resources)?	🟩	🟨	🟥	⬜	🟩	🟥
3. Does a fuel-reduction programme consider the potential uses of debris and vegetation (and, where appropriate, encourage local communities to use wood for fuel and perhaps grasses and shrubs for grazing or other community needs)?	🟩	🟨	🟥	⬜	🟩	🟥
4. Do plans to use mechanized equipment assess the potential damage from the equipment and seek to mitigate this potential or ensure that the benefits outweigh the potential risks?	🟩	🟨	🟥	⬜	🟩	🟥

Additional comments:

13. Planned fire	Adequately addressed	Needs attention	Needs substantial attention	Not applicable	External support needed	
					yes	no
1. Are impacts on human health and air quality considered when conducting planned burns?	🟩	🟨	🟥	⬜	🟩	🟥
2. Prior to the reintroduction of fire, do plans include consideration of the impacts of long-term fire exclusion on resources, vegetation and ecosystem and human health?	🟩	🟨	🟥	⬜	🟩	🟥
3. Based on the complexity and potential risk, are planned burns undertaken only after plans have been developed (that consider operational procedures for safe work practices, predicted environmental effects and the expected fire behaviour needed to produce the predicted effects)?	🟩	🟨	🟥	⬜	🟩	🟥
4. Are the results of the burns monitored and recorded and used to revise operating plans, procedures, environmental parameters and contingency plans?	🟩	🟨	🟥	⬜	🟩	🟥
5. Does a contingency plan address the potential of fires to escape and damage resources, property, habitats and communities or to threaten the safety of agency personnel or private citizens?	🟩	🟨	🟥	⬜	🟩	🟥

Additional comments:

14. Burned area restoration and rehabilitation	Adequately addressed	Needs attention	Needs substantial attention	Not applicable	External support needed	
					yes	no
1. Is every burned-area rehabilitation and restoration plan based on the planned or natural fire regime for the area and include actions that facilitate a restored, healthy sustainable ecosystem or cultural area?	green	yellow	red	grey	green	red
2. Does every fire-suppression plan consider the need for immediate corrective action that will mitigate further damage resulting from the suppression, such as constructing fire breaks or other disturbance activity?	green	yellow	red	grey	green	red
3. Where natural processes are not expected to provide adequate regeneration, are rehabilitation plans developed that use plants, trees and grasses native to the ecosystem and that will not cause damage or unexpected consequences?	green	yellow	red	grey	green	red
4. Is care taken to ensure that seed sources are reasonably free from contaminants such as seeds of invasive species?	green	yellow	red	grey	green	red
Additional comments:						

15. Monitoring and assessment	Adequately addressed	Needs attention	Needs substantial attention	Not applicable	External support needed	
					yes	no
1. Is a comprehensive plan for monitoring and assessing all aspects of the fire-management programme implemented?	green	yellow	red	grey	green	red
2. Is a safety programme (including analysis of near-miss incidents, accident reports and a review of lessons learned) implemented and monitored to reduce the risk to firefighters, fire managers and the public?	green	yellow	red	grey	green	red
3. Is information and data from the fire prevention programme used to develop a monitoring system that measures the effectiveness of fire prevention efforts?	green	yellow	red	grey	green	red
4. Is a programme implemented to monitor the ecological effects of fire and of suppression methods (should include cooperation with universities, research organizations and local communities)?	green	yellow	red	grey	green	red
Additional comments:						