

Common template for risk assessment and management operational tools and best practices identification (Action B1)

Title: Operational Tools and Best Practices for Risk Assessment and Management

The identification of tools and best practices on risk assessment and management helps providing an idea of the state of the art in the field. By completing this form, the best practice will be included in the knowledge repository platforms and available for the practitioner community to use. We encourage the user to complete as many fields as possible from the template in order to provide the most relevant information needed to apply the best practice to other practitioners.

Instructions:

- Blue boxes are mandatory fields
- More than one item can be selected in multiple choice boxes

Document classification

Title	Legal brushing obligation
Description	Legal framework for brushing implementation by land owners
Country, location	France
Date	2017
Contact e-mail	
Institution	Municipalities
Net Risk Work Partner	EPLFM
Document type	Best practice
Language	<input type="checkbox"/> Catalan <input checked="" type="checkbox"/> English <input checked="" type="checkbox"/> French <input type="checkbox"/> German <input type="checkbox"/> Italian <input type="checkbox"/> Spanish <input type="checkbox"/> Other
Source/origin	<input checked="" type="checkbox"/> Partner's expertise <input type="checkbox"/> Expertise from the network <input type="checkbox"/> Other (internet)

Topic

Area	<input type="checkbox"/> Risk assessment	<input type="checkbox"/> Risk Planning	<input checked="" type="checkbox"/> Risk Management
Risk	<input checked="" type="checkbox"/> Wildfires	<input type="checkbox"/> Fire behaviour patterns and typologies <input type="checkbox"/> Fire ignition and spread models <input type="checkbox"/> Wildland urban interface	<input checked="" type="checkbox"/> Fuel management <input type="checkbox"/> Fire service needs <input type="checkbox"/> Prescribed burning <input type="checkbox"/> Other <i>[Introduce which ones]</i>
	<input type="checkbox"/> Storms	<input type="checkbox"/> First measures after storm <input type="checkbox"/> Work safety during salvage logging <input type="checkbox"/> Timber storage and cost containment <input type="checkbox"/> Forest protection and pest control	<input type="checkbox"/> Regeneration and afforestation <input type="checkbox"/> Preventive silvicultural measures <input type="checkbox"/> Other <i>[Introduce which ones]</i>
	<input type="checkbox"/> Avalanches	<input type="checkbox"/> Technical protective measures <input type="checkbox"/> Maintenance of protection forests	<input type="checkbox"/> Other <i>[Introduce which ones]</i>
	<input type="checkbox"/> Floods	<input type="checkbox"/> Prevention through land use management <input type="checkbox"/> Technical protective measures	<input type="checkbox"/> Other <i>[Introduce which ones]</i>
	<input type="checkbox"/> Other	<i>[Introduce which ones]</i>	
Cross-sectoral topics	<input checked="" type="checkbox"/> Risk and vulnerability assessment and mitigation <input type="checkbox"/> Cost-effectiveness assessment <input type="checkbox"/> Civil protection, emergency and post-	<input type="checkbox"/> Risk planning, governance and policy framework <input type="checkbox"/> Community involvement and risk communication	



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	disaster management	<input type="checkbox"/> Other: [Introduce which ones]
Level	<input checked="" type="checkbox"/> Local	<input type="checkbox"/> Regional <input type="checkbox"/> National <input type="checkbox"/> Cross-border <input type="checkbox"/> EU <input type="checkbox"/> Global
DRM cycle phase	<input checked="" type="checkbox"/> Prevention	<input checked="" type="checkbox"/> Preparedness <input checked="" type="checkbox"/> Response <input type="checkbox"/> Recovery
DRM domain	<input type="checkbox"/> Policy making	<input type="checkbox"/> Early warning system <input checked="" type="checkbox"/> Disaster response
Sendai priorities	<input type="checkbox"/> Priority 1: Understanding disaster risk <input type="checkbox"/> Priority 2: Strengthening disaster risk governance to manage disaster risk <input checked="" type="checkbox"/> Priority 3: Investing in disaster risk reduction for resilience <input checked="" type="checkbox"/> Priority 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction	
Contribution to Sendai Targets	<input checked="" type="checkbox"/> Reduce global disaster mortality <input checked="" type="checkbox"/> Reduce the number of affected people <input checked="" type="checkbox"/> Reduce the direct disaster economic loss <input checked="" type="checkbox"/> Reduce disaster damage to critical infrastructure <input type="checkbox"/> Increase the number of national and local disaster risk reduction strategies <input type="checkbox"/> Enhance international cooperation to developing countries <input type="checkbox"/> Increase availability of and access to multi-hazard early warning systems and disaster risk information and assessment	

Description and analysis

Summary: quick presentation of the Good Practice <i>[Objective: summarize in a few lines the key elements of the good practice]</i>
<u>Place in national/regional policy</u> In France, brushing is the main prevention measure against forest fires. The concept is framed at national level in the Forestry code and detailed at local level in Prefectural Decrees (providing information of the concerned areas and the practical implementation).
<u>Goals and achievements</u> Brushing is defined by the operations aiming at reducing the fuel volume in order to limit wildfire intensity and propagation: <ul style="list-style-type: none"> – Vertical discontinuity to limit fire propagation – Horizontal discontinuity to limit fire intensity Brushing and maintenance in brushed conditions is not a clear-cut. Rather, brushing must allow for a normal development of existing forest stands. Brushing aims at limiting the damage due to forest fires and facilitating fire-fighters operations.
<u>Actors involved</u> Brushing legal obligation work is incumbent upon the owners of the goods to be protected. The mayor must control the implementation of such obligations. In case of necessity, the public authority may decide on its own initiative to carry out the brushing work, the cost of which will be borne by the defaulting owner.
<u>Implementation stage</u> More and more departments prescribe brushing obligations, usually after particularly tough fire seasons (example of Isère after the summer 2003).
<u>State of technical knowledge</u>
<u>Context</u> Article L.134-6 of the Forestry Code states that there is a legal brushing obligation in the three following cases: <ul style="list-style-type: none"> – around buildings, worksites, and any type of installation, with a depth of 50m – around private roads providing access to building sites and any type of installations, with a depth of 10m on each side and a minimum height of 4m – on all urban areas characterized as such in urban planning documents (PLU, POS)



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Detailed Characteristics [Objective: detail the implementation conditions of the Good Practice]

Description of the implementation steps

The implementation of brushing legal obligation includes:

- Maintaining enough space between the trees in the concerned area to prevent fire propagation (either tree by tree with a 2 meters' distance between their respective foliage, or by stands of trees of maximum 50m² with 5 meters' distance to other trees and 20m distance to buildings)
- Cutting low branches under 2 meters high
- Cutting branches and isolated trees located less than 3m away from an opening (door, window), or an exposed roofing framework, or overhanging the roof
- Maintaining at least 3m distance between hedges' edge and a building or a forest stand
- Cutting and remove all death woods and brushes
- Removing cut plants by grinding, composting, landfilling, or incineration (respecting regulations)

Governance

The zoning of the areas to be brushed is stated by Prefectural decree. It can be completed by local urban planning document. Those can be contested before the Administrative Court.

Necessary means to implement the Good Practice in efficient conditions

Municipal awareness raising campaigns followed by control campaigns are very efficient. ONF demonstrated an increase by 30% to 40% of the implementation of the brushing measures. Financial penalties are also a way to ensure a better implementation. Violation of the brushing obligations is subject to a 750€ to 1500€ fine. In case of a fire, the owner may be held responsible if he was in breach of its obligations.

Challenges encountered during implementation and solutions incurred

The main challenge is the control by the municipality, which is a time-consuming process.

Priorities identified for successful implementation of the Good Practice

A good information of the lands and goods owners by the municipalities is crucial. Means to control that obligations are actually implemented need to be planned by the local authorities.

Impact of the Good Practice [Objective: evaluate the impact of the Good Practice].

Compliance with brushing obligations has proven very effective in wildland-urban interfaces. The statistical analysis after the large wildfires of 2003 in the Var department was an opportunity to assess the results of this measure. Indeed, it was demonstrated that such measure (brushing at a 50m depth) ensured a good protection in 90% of the cases, while if it is reduced to 20m, the protection rate diminishes to less than 40%.

In Bouches-du-Rhône, the public authorities use the fire at Carry-le-Rouet (July 2010) as an example of the effectiveness of such measures with the comparison between preserved building in areas where the implementation was correct and destroyed houses where the obligations were not respected.

Future developments [Objective: understand the follow-up perspectives]

Keep controlling the implementation of the obligations and continue awareness raising of property owners.

Multiple factors can combine and increase damages to buildings yet complying with the brushing obligation: topographical position, facilities installed in the neighbourhood, building design and organization of the surroundings. Indeed, such factors must be taken into account when planning prevention and protection measures.

External resources [Objective: provide further information]

Attached materials	<i>[include format (document, photo, video...) and name of the file]</i>
Web links	Public information leaflet in French (Bouches-du-Rhone department) : http://www.bouches-du-rhone.gouv.fr/content/download/10776/64793/file/La%20brochure%20d'information%20sur%20le%20d%C3%A9broussaillage.pdf
Contacts	

[Additional information - optional]

Lessons learnt <i>[Objective: compare the results obtained to the objectives set at the start of the Good Practice]</i>
<u>Evaluation process</u> No specific process planned, rather debriefing after fire seasons.
<u>Assessment of results (quantitative and qualitative) and comparison with main goals</u>
<u>Negative aspects identified</u>
<u>Unexpected consequences (short / mid / long term) and corrective measures implemented</u>

Durability and transferability <i>[Objective: evaluate the integration of the Good Practice and its sustainability, give recommendations for transferability]</i>		
Is this information:	Replicable <input checked="" type="checkbox"/>	Measurable <input checked="" type="checkbox"/>
<u>Regulatory Framework</u>		
<u>Stability of the human environment</u>		
<u>Financial requirements</u>		
<u>Success factors</u> —		
<u>Risk factors</u>		
<u>Additional and non-formal experiences contributing to the implementation of Good Practice</u>		