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	**Goal oriented risk management with the ICE (Influence-Change-Exposure) method**
Description *[1 sentence]*	**Multi-Risk assessment and management tool for forest practitioners and decision-makers based on management objectives**
Country, location	**Germany**
Date	**2015**
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Institution	**Forest Research Institute of Baden-Wuerttemberg**
Net Risk Work Partner	**FVA**
Document type	**Best practice**
Language	☐Catalan ☒English ☐French ☒German ☐Italian ☐Spanish ☐Other
Source/origin	☒Partner's expertise ☐Expertise from the network ☐Other (internet)

Topic

Area	☒Risk assessment	☐Risk Planning	☐Risk Management
Risk	☐**Wildfires**	☒Fire behaviour patterns and typologies ☐Fire ignition and spread models ☐Wildland urban interface	☐Fuel management ☐Fire service needs ☐Prescribed burning ☐Other *[Introduce which ones]*
	☐**Storms**	☐First measures after storm ☐Work safety during salvage logging ☐Timber storage and cost containment ☐Forest protection and pest control	☐Regeneration and afforestation ☐Preventive sylvicultural measures ☐Other *[Introduce which ones]*
	☐**Avalanches**	☐Technical protective measures ☐Maintenance of protection forests	☐Other *[Introduce which ones]*
	☐**Floods**	☐Prevention through land use management ☐Technical protective measures	☐Other *[Introduce which ones]*
	☒**Other**	The methods cover all risks relevant for the specific case	*[Introduce which ones]*

Cross-sectoral topics	☒Risk and vulnerability assessment and mitigation ☒ Cost-effectiveness assessment ☐Civil protection, emergency and post-disaster management	☐Risk planning, governance and policy framework ☐Community involvement and risk communication ☐Other: [Introduce which ones]
Level	☒Local ☐Regional ☐National ☐Cross-border ☐EU ☐Global	
DRM cycle phase	☒Prevention ☒Preparedness ☐Response ☐Recovery	
DRM domain	☒Policy making ☐Early warning system ☐Disaster response	
Sendai priorities	☒Priority 1: Understanding disaster risk ☒Priority 2: Strengthening disaster risk governance to manage disaster risk ☐Priority 3: Investing in disaster risk reduction for resilience ☒Priority 4: Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction	
Contribution to Sendai Targets	☐Reduce global disaster mortality ☐Reduce the number of affected people ☒Reduce the direct disaster economic loss ☒Reduce disaster damage to critical infrastructure ☐Increase the number of national and local disaster risk reduction strategies ☐Enhance international cooperation to developing countries ☐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 *[Objective: summarize in a few lines the key elements of the good practice]*
The ICE-method is a criteria-based risk assessment based on the factors influence, change and exposure which are derived from the risk components "natural incident", "vulnerability" and "exposure". The method emphasizes management goals to

Place in national/regional policy *[Mentioned in the law/regulation/guidelines? Mandatory?* *The method is based on the common definitions of risk determinants by the IPCC and UNISDR. No direct link to national or regional policy.*
[free text – 5 lines max]

Goals and achievements *[Objectives, goals and the achievements of the Good Practice]*
The method aims to help forest owners or enterprises to assess their individual risk factors based on their management goals and priorities. Until now (June 2017), several municipal and private forest enterprises performed the assessment under guidance of the KoNeKKTiW project staff.
[free text – 5 lines max]

Actors involved *[Explain who is involved in the development: practitioners, stakeholders, educators, …]*
At the current level of development, the method is an offering of the German KoNeKKTiW project and is conducted in cooperation with the partaking forest enterprises.
[free text – 5 lines max]

Implementation stage *[Is it operational? Since how long? Is it a pilot experiment?]*
The first assessment was conducted in 2015; the method has been adapted and improved since then. Based on the experience with already existing risk assessments, the database of factors is updated constantly. The method has been published in a German forest journal.
[free text – 5 lines max]

State of technical knowledge *[state of the art and technical background of the Best Practice]*
The method was implemented in Microsoft Access. The information for the factors is based on literature research conducted in 2015 continuously updated, based on the knowledge acquired from new cases.

[free text – 5 lines max]

Context *[regulatory, socio-economic, political]*
The method is based on the idea that different management goals require different measures since the vulnerability and expose of a forest enterprise is dependent on those goals. Furthermore, efforts to adapt to climate change will emphasize prevention rather than crisis management.
[free text – 5 lines max]

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

Description of the implementation steps *[different stages in the implementation process, duration]*
The method is usually implemented as follows: (1) A first informational interview to discuss the analysis method and the individual situation of the forest enterprise. (2) A first assessment phase conducted by a staff member of the KoNeKKTiW project based on enterprise data. (3) A second interview to evaluate the data and to discuss unclear points. (4) A second assessment phase. (5) A final meeting and handover of the final printed product and the individual database (MS Access). The full process takes a net time of approx. two to four weeks.
[free text – 5 lines max]

Governance *[responsible authority and roles of the different actors involved]*
The responsible authority of the method is the Dept. of Forest Economics of the FVA. It was developed during the start-up phase of the KoNeKKTiW project and is conducted by the project staff.
[free text – 5 lines max]

Necessary means to implement the Good Practice in efficient conditions *[human resources, materials, financial...]*
The method is time consuming and (at the current state) needs professional guidance to be conducted. Materials and financial aspects (except for human resources) play a minor role.
[free text – 5 lines max]

Challenges encountered during implementation and solutions incurred
The method is complex and time consuming. Therefore, it was implemented in MS Access to make it utilizable through a step by step approach. Since the database behind is currently enriched with pre-set goals and associated factors, the assessment becomes easier to conduct.
[free text – 5 lines max]

Priorities identified for successful implementation of the Good Practice
The method requires the use of sensitive data. Therefore, a trusting cooperation between all involved parties is necessary.
[free text – 5 lines max]

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

[Added value on decision processes, on national policies or regulations, on relationship with stakeholders, etc.]
The feedback of the participating forest enterprises is predominantly positive. The managers of municipal forests described the assessment as a good method to make a comparative presentation of a forest enterprise' goals and risks which then can be presented to the owner (local council) in order to adapt priorities and measures.
[free text – 5 lines max]

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

[*Continuation, future improvements,]*
In order to sustainably make the method available after the end of the KoNeKKTiW project, it is planned to develop the Access version so far that it can be utilized by forest enterprises themselves independently due to pre-set factors and guiding explanations.
[free text – 5 lines max]

External resources *[Objective: provide further information]*	
Attached materials	Method description in German and English
Web links	
Contacts	

[Additional information - optional]

Lessons learnt [*Objective: compare the results obtained to the objectives set at the start of the Good Practice]*
Evaluation process, if exists (internal or external) The method received positive feedback and was recommended by the participants. The issues with its complexity (as mentioned above) resulted in the development of the MS Access version and the implementation of pre-set factors. *[free text – 5 lines max]*
Assessment of results (quantitative and qualitative) and comparison with main goals An assessment of the methods' efficacy is planned via a master thesis in 2017 (ongoing). *[free text – 5 lines max]*
Negative aspects identified The method mainly is made use of by forest enterprises which already are aware of risk handling. *[free text – 5 lines max]*
Unexpected consequences (short / mid / long term) and corrective measures implemented *[free text – 5 lines max]*

Durability and transferability [*Objective: evaluate the integration of the Good Practice and its sustainability, give recommendations for transferability]*			
Is this information:	**Replicable** ☐	**Measurable** ☐	
Regulatory Framework *[free text – 5 lines max]*			
Stability of the human environment *[Stability of partnership, structures, population enabling successful implementation and positive impact in the long term]* *[free text – 5 lines max]*			
Financial requirements *[business model]* *[free text – 5 lines max]*			
Success factors *[political, technical, human, financial...]* *[free text – 5 lines max]*			
Risk factors *[legal, financial, safety…]* *[free text – 5 lines max]*			
Additional and non-formal experiences contributing to the implementation of Good Practice *[free text – 5 lines max]*			

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