









Technical Committee n°7

Minutes

-  Emerging pests & diseases
-  Pine wood nematode
-  Eucalyptus weevil
-  Chestnut gall wasp
-  Pitch canker
-  Forest fire

-  Storm

-  Soil degradation

7-8 November 2018

**Niemeyer Center
Avilés, Asturias
Spain**

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Agenda

DAY 1: 7 NOVEMBER		Attendees: Partners only Language: English Venue: Niemeyer Center
TECHNICAL COMMITTEE WP3		
11:30	Arrival at site	
12:00	Lunch	
13:30	Start: Welcome address and agenda validation	Christophe Orazio Juan Majada
14:00	Task coordination: <ul style="list-style-type: none"> - Audit results (Nick Carter) - Budget and already spend expenses - Issues for funds claim - Deliverables in 4 languages Open questions	Christophe Orazio
15:30	Feedback on WP2	Sarah Yoga
16:00	WP3: Aim, 10 case studies, Methodology, Economic assessment, Expected results	Juan Majada
17:00	End of Day 1	

DAY 2: 8 NOVEMBER		Attendees: Partners only Language: English Venue: Niemeyer center
TECHNICAL COMMITTEE WP3		
8:00	Feedback on evaluated risk managements plans	Risk management plan leaders
10:00	Break	
10:30	WP3 Next steps	Juan Majada
10:45	Silvalert application	Sarah Yoga
12:00	WP4	Julio Diez / Christophe Orazio
12:30	Lunch	
14:00 **	Visits Cetemas foundation Clonal eucalyptus trials Silvalert field application	
17:00	End of the conference	

** Reinforce visio-conference to take place at the same venue

List of attendance

	FIRST NAME	LAST NAME	ORGANISATION
1	Gorka	ALTUNA	USSE
2	Leire	SALABERRIA	USSE
3	Alejandro	CANTERO	HAZI
4	Coudonga	PRENDES PÉREZ	CETEMAS
5	Sandra	SANCHEZ GARCIA	CETEMAS
6	Elena	CANGA LIBANO	CETEMAS
7	Cristina	FERNANDEZ FILGUEIRA	CIF
8	Enrique	JIMENEZ CARMONA	CIF
9	Ander	ARIAS GONZALES	NEIKER
10	Nahia	GARTZIA BENGOETXEA	NEIKER
11	Juan	MAJADA	CETEMAS
12	Manuela	BRANCO	ISA
13	Hervé	JACTEL	INRA
14	Frederico	PARZA	INIAV
15	Luis	BONIFACIO	INIAV
16	Edmundo	SOUSA	INIAV
17	Julio	DIEZ CASADERO	UVA
18	Conceição	COLACO	ISA
19	Manuel	MADEIRA	ISA
20	Laura	LUQUERO	TRAGSATEC
21	Asuncion	ROLDAN ZAMARRON	TRAGSATEC
22	Christophe	ORAZIO	EFI
23	Sarah	YOGA	EFI

WP3 meeting - Avilés - 7.8/11/2018 : List attendance

First name	Last name	Organisation	Signature
1 GORKA	ALTUNA	USSE	[Signature]
2 LEIRE	SALABERRIA	USSE	[Signature]
3 ALBAJOZO	CANTERO	USSE	[Signature]
4 GONDOUSA	FRENDES PEREZ	USSE	[Signature]
5 SANDRA	SANCHEZ GARCIA	CETEMAS	[Signature]
6 ELENA	GAMBA LIBANO	CETEMAS	[Signature]
7 CRISTINA	FELDMANN FLORENTINO	CETEMAS	[Signature]
8 SAIZ	JIMENEZ CARMONA	CIF	[Signature]
9 ANDOR	PARIS-GRAVIER	CEG	[Signature]
10 KAHIA	GARCIA-BERGUESA	MILKER	[Signature]
11 JUAN	MALDA GARCIA	NEVES	[Signature]
12 ANIVELA	BRANCO	CETEMAS	[Signature]
13 FERRER	JACINTO	ISA	[Signature]
14 LUIS	PARRA	INIAV	[Signature]
15 EDUARDO	BONIFACIO	INIAV	[Signature]
16 JULIO	SOUSA	INIAV	[Signature]
17 CONCEPCION	DIET-CATEM	UVA	[Signature]
18 MARCEL	COLARO	ISA	[Signature]
19 SAMAH	PIREIRA	ISA	[Signature]
20 CHRISTOPHE	YOSA	ISA	[Signature]
21	ORAZO	GFI	[Signature]
22	Laura	GFI	[Signature]
23 e Sup	Liquero	TRAGATEC	[Signature]
24	Asuncion	TRAGATEC	[Signature]
	Baldin Zammann		

Minutes and main decisions

Welcome address and agenda validation

The session was opened by Juan Majada and Christophe Orazio.

Christophe presented the status of the project, its current and expected results. He presented the global reviews of the project following the audit held in September. Christophe emphasized on the need to have the tools description sheets available in English, French, Portuguese and Spanish and the need to promote the different output (risk management plans, tools) to the end users.

Christophe invited risk teams who had developed practical tools to present their work during the IEFC summer school that will be held on the 24-28 of June 2019. Interested persons should contact Barry Gardiner (barry.gardiner_efi.int). They can also contact him about a RISE proposal in preparation on a similar topic.

Feedback on WP2

Sarah Yoga made a review of the different plans and tools already available. Each forest risk team provided complementary information to update the list.

Edmundo Sousa and Ander Gonzales pointed out that it would be difficult to provide a pinewood nematode plan and an emerging pest and diseases plan respectively given that these were a sensitive topic in their region.

WP3: Aim, 10 case studies, Methodology, Economic assessment, Expected results

Juan Majada explained the methodology of how to assess the risk management plans. He gave detailed information on the form [WP3 risk management plan evaluation V2.docx](#).

Manuela Branco asked if it was possible to assess the plans by conducting interviews. Christophe answered that it would be preferable to use active evaluation methods with oral participation.

Sarah pointed out the evaluation form was generic and needed to be adapted to each region when evaluating a risk.

Conceição Colaço asked how to efficiently assess the forest fire plan given the current context. Christophe and Elena Canga suggested focussing on the evaluation of the prevention methodology.

Hervé Jactel noted that the forecast evaluation method would suit best for the storm, fire, PWN plans and the RPG method for the emerging pest and disease plan.

Ander suggested extending invitations to other partners when evaluating a given forest risk management plan.

Edmundo asked if would be better to have an integrative approach and to evaluate related forest hazards together. Christophe answered that this would be interesting but challenging to implement in WP3. He suggested adding the need for an integrative approach to forest risks as a recommendation in the final report, and during the final conference of the project.

Christophe explained how to perform an economic assessment of a risk management plan. He gave detailed information on the form [WP3 risk plan economic assessment.V2.xlsx](#)

Hervé pointed out that it would be better to add similar info in the form for each plan for comparison purposes. The form was amended consequently ([WP3_risk_plan_economic_assessment.v2.xlsx](#)).

Feedback on evaluated risk managements plans

Each forest risk team presented the process they would be following to evaluate their plan as well as the expected date of evaluation ([Table 1](#)).

Christophe pointed out the expected output:

- **deliverable 3.1.1:** a short report explaining how the evaluation was processed, and the main updates needed on the plan evaluated (where/when/how/ methodology used/results/ list of attendance/pictures)
- **deliverable 3.2.1** economic assessment report based on the excel sheet provided an economic assessment
- and taking into account results and comment from previous deliverables, deliverable 4.1.1 final version of improved risk management plans + improved risk management tools descriptions

Silvalert application

Sarah did an interactive workshop where the audience tested the Silvalert application. The different steps in the workshop included: downloading the Silvalert app, creating an account, creating and sending a report, validating the report.

She pointed out that the beta version of Silvalert was being tested until the 31st of December and asked participants to use the app and report any bugs, comments or translation errors. Any problem identified after this date will generate an additional cost to be fixed.

WP4

Julio Diez refreshed the audience on the work package 4: the aim, input, and expected output. He also asked what should be done after the end of Plurifor. The audience suggested to implement an expert advisory group and to add a list of experts as a deliverable of the Plurifor project. It also noted out that the group of experts should be proactive. Hervé raised the point about how to be more involved and get the benefit of the European risk facility launch by EFI and lead from Bonn. Some direct contact with EFI BONN will be considered.

The audience then voted for the date and venue of the final meeting: 3-5 June 2019 in Bordeaux/ Cestas – France.

Table 1: Risk management tools (deliverables) updates

	Aquitaine	Aquitaine	Basque country	Basque country	Asturias	Galicia	Cantabria	Castilla and Leon	Portugal	Portugal	Leaders
Hazard	EFI	INRA	HAZI	NEIKER	CETEMAS	CIF	UVA	TRAGSATEC	ISA	INIAV	
Storm	8/8		2/2								B. Gardiner
Forest fire			1/1	2/2							F. Rego
Soil degradation	soon available										Ander Arias
Eucalyptus weevil (Gonipterus)	3/3										M. Branco
Pine wood nematode		1/1						1/1			H. Jactel
Chestnut gall wasp (Dryocosmus)	soon available										E. Sousa
Pin pitch canker (Fusarium)	3/3										J. Diez
Emerging pests		1/1									H. Jactel

Maps

Etorm 2/2
 Eucalyptus weevil no
 Soil **TBC**

1. WP3 risk management plan evaluation V2.docx

Introduction

Following the Plurifor June 2018 meeting, ten plans for the following risks had been listed for a testing and an economic evaluation:

Risk	Regions	Team leaders	Type of simulation and Comments	Evaluation date
Pinewood nematode	Aquitaine	H. Jactel	RPG + Forecast comparison Contacts are ongoing with forest health services. The timing for the evaluation has to be chosen with Emmanuel Kersaudy. Methodology: RPG evaluation; however, PWN is a controversial issue. Simulation of many pheromone trapping networks and diverse infections	January 2019
Pinewood nematode	Castilla y León	J. Casado	Expert cross-viewing Methodology: testing remote sensing tools (RPAS images + field data) and determining the probability for the prospection of PWN. Workshop organized jointly with	20/11/2018
Emerging pests and diseases	Aquitaine	H. Jactel	RPG + Forecast comparison Methodology: Simulating the presence of a new pest on eucalyptus stand through SILVALERT, validating the information, executing the plan (study pest biology, monitoring, the spread of the pest, ...)	December 2018

Risk	Regions	Team leaders	Type of simulation and Comments	Evaluation date
Wind	Aquitaine	B. Gardiner	<p>To be confirmed</p> <p>National wind damage plan produced in Sep. 2018, Plurifor main contribution: prevention methods, Sensitive topic-> reluctance from authorities to evaluate plan with private industry</p>	January 2018
Wind	Euskadi	A. Cantero	<p>Expert cross-viewing</p> <p>Methodology: evaluation jointly with Baskagur.</p>	December 2018
Forest fire	Portugal+Galicia+ Basque country	F. Rego	<p>Forecast comparison</p> <p>Methodology: testing in at least in a Portuguese region, also in the region of Galicia, as a transboundary exercise. Cost assessment based on the FORECAST approach in regions</p>	9/11/2018
Soil degradation	Portugal	A. Gonzales+ M. Madeira	<p>Forecast comparison</p> <p>Simulate and evaluate ALTRI forest company case study, concerning high erosion in eucalyptus plantation after fire (presented at this risk workshop): detailed information is available.</p>	3-4/12/2018

Risk	Regions	Team leaders	Type of simulation and Comments	Evaluation date
Pine pitch canker	Cantabria	J. Diez	<p>Forecast comparison</p> <p>Methodology: Analysis of developed tools, cost evaluation of procedure proposed on the new plan; plan comparison (with and without survey tools); plan improvement (changing methods used for detection, systematic network design); plan comparison: run the plan in infected and non infected area; compare damages in plan</p>	January 2019
Eucalyptus weevil	Portugal +Asturias+ Castilla y Leon	J. Majada + M. Branco	<p>Forecast comparison</p> <p>Methodology: simulating and evaluating ALTRI forest company case study on high erosion in Eucalyptus plantation after fire (presented at this risk workshop). Detailed information is available. Venue : 80 km from Lisbon. Case transformation of terraces with visible erosio (loss FSC certificate for 3 years). Two days simulation->focus on prevention measures / comparaiso of plans; + demonstration of survey Tools (WP4)</p>	January 2019

Risk	Regions	Team leaders	Type of simulation and Comments	Evaluation date
Chestnut gall wasp	Portugal	E. Sousa+J. Majada+J. Casado	Expert cross-viewing Methodology: Experts from Spain, France and Portugal; effort on release strategies, and assessment of populations. Facilitate coordination of strategies between countries; Identify if the tools proposed are compatible or not with other chestnut pest and diseases management	January 2019

This document is a guideline that can be used to assess the risk management plans following three selected methods:

- **A role-playing game (RPG):** in risks as the pinewood nematode and wind in Aquitaine, PLURIFOR risk coordinators could organize a role-playing game with the authorities and the forest-timber sector stakeholders and play a chosen scenario of the hazard. With this procedure, the plans could be tested (activity 3.1) and economically evaluated (activity 3.2; by the economic evaluation of the costs of each action decided by the players).
- **Forecast comparison:** simulate landscape evolution with and without applying the plans and evaluate a study case where detailed information is available (as proposed by A. Arias in the case of soil degradation risk). Based on this simulation discuss and update the proposed plans. A. Arias, as soil degradation risk coordinator, has first to obtain the permission of Altri Florestal, the company owner of these data.
- **Expert cross-viewing:** A committee of experts can evaluate the plans. They would check each step of the plan, its feasibility, and its economic costs, without using any scenario. This is a more classical approach.

A role-playing game (RPG)

Aim

To evaluate the effectiveness of the tools and risk management plan by simulating a disaster and applying the plan.

Participants

1 moderator + hazard crisis management team

Methodology

Preparing for the workshop: the role of the moderator.

The moderator will be supervising the execution of the risk management plan during the workshop. He/she has to prepare the following documents beforehand:

1. A study site where the simulated hazard will occur
2. The inputs required before applying a risk management plan (e.g.: maps, tables, graphs which describe the study site ...).
3. A list of key people/ organizations who are likely to be involved when a hazard occurs (e.g.: local authorities, firemen, police, media, local community, forest operators...).
4. A list of required materials to mitigate the hazard (e.g.: manpower, transportation equipment,...)
5. A list of external products/services which may be required to mitigate the hazard (e.g.: satellite imagery, drone survey, ...)
6. Maps, tables, graphs ... which describe the state of the study site after the hazard (= outputs)
7. A survey which assesses the effectiveness of the risk management plan
8. The moderator organizes the workshop and invites each key person/ organization.

During the workshop

All key people/ organization involved in a regional hazard crisis management and the moderators should participate in the workshop. The moderator announces: "we have received information that a hazard has occurred at this given study site". He/she then invites the audience to manage the crisis following the risk management plan. He/she initiates the role-playing game and prompts each representative to intervene when required by the risk management plan.

After the workshop

After the game playing, the moderator will ask the audience to complete a survey and an economic assessment form (see Annexes).

Forecast comparison

Aim

To evaluate the effectiveness of the tools and risk management plan by simulating the landscape evolution when:

- the tools and risk management plan has been applied during the hazard
- the tools and risk management plan has not been applied during the hazard

Participants

1 moderator + hazard crisis management team

Methodology

Before the workshop: the role of the moderator.

The moderator will be supervising the forecast comparison workshop. He/she has to prepare the following beforehand:

1. Two study sites (control + test) which present similar environmental conditions but are geographically isolated
2. The inputs required before applying a risk management plan (e.g.: maps, tables, graphs which describe the study sites ...)

The moderator will run a hazard occurrence scenario in both study sites and apply the risk management plan at the test site only. He will then produce the following documents:

1. Maps, tables, graphs ... which describe the state of both study sites after the hazard (= outputs)
2. A survey to test the effectiveness of the risk management plan

During the workshop: the role of the audience.

The moderator distributes inputs and outputs of the study sites to the team. The team will also complete a survey and an economic assessment form (see Annexes).

Expert cross-viewing

Aim

To evaluate the effectiveness of the tools and risk management plan by a panel of experts.

Participants

1 moderator + a panel of hazard crisis management experts

Methodology

Before the workshop: the role of the moderator.

The moderator organizes a workshop and invites a panel of hazard crisis management experts

During the workshop: the role of the audience.

The moderator distributes the risk management plan to the experts. The experts assess the strengths and weaknesses of the plan and make some recommendations.

2. Risk management plan workshop survey

Q1 Which organization are you representing?

Q2 Which challenges or constraints did you face when playing your role at the workshop?

Q3 Were there misunderstandings with other parties when playing your role at the workshop?

Q4 Which other parties should have been involved when simulating the hazard mitigation?

Q5: Were there any unexpected events when executing the risk management plan?

Q6 What are the advantages of applying the risk management plan?

Q7 Please estimate the economic losses when the risk management plan is not applied?

Q8 Which actions should be taken to improve the risk management plan?

Q9 What is your overall impression of the risk management workshop?

Q10 How is this workshop useful to your organization?

3. Plurifor plans economic assessment (WP3 risk plan economic assessment V2.xls)

Fill the yellow cells only

Summary

Workshop	Dates	
	Venue	
Scenario used to assess the plan	1. Game role	
	2. Forecast comparison 3. Expert cross-viewing meeting	
Assumptions made for the assessment Area damages Forest area affected Number of months from the first expenses to the last one ...		
Contributors		
Comments		

Personal costs

Organization	Status	Type	Category	Month cost	Code
DRAAF	public	Permanent	Ingenieur	5000	DRAAF-Inge
USSE	private	non permanent	technician	3000	USSE-tech
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
TOTAL				8000	

Expenses induced by the plan (Expenses associated with the plan execution)

STEPS	Categories ***	Actions	Cost description	Direct cost description	Direct cost E/unit	Units	Total cost	HR involved	HR person month	HR costs	
Alert	Travel Consumable Equipment Communication cost Contracting	First meeting alert	participation of DRAF	travel	100	1	100,00 €	USSE-tech	0,05	150	
			participation of ONF				- €	DRAAF- Inge	0	0	
				catering				- €	-	0	0
Stage 1			Flight damage assessment for	Flight preparation					-	1	0
									USSE-tech	2	6000
Reconstitution			Support reforestation for	subsidies for cleaning by DRAF for	grant for owner (€/ha)	2300	2000 00	- €	USSE-tech	3	9000
								USSE-tech	4	1200 0	
								USSE-tech	5	1500 0	
								USSE-tech	6	1800 0	
TOTAL							100,00 €	- €	21,05 €		

PS: this is the marginal cost (additional cost on business as usual without the plan only)

***Amendments to the previous version

Damages saved (Losses avoided by the plan)

STEP	Description damages avoided	Direct cost E/unit	Units	Total cost saved	Comment/sources/additional information about this estimate
Stage 1	additional casualties (€/person)	1000000	100	100 000 000,00 €	
Stage 2	limitation of bak beetle damages (€/ha)	8000	100000	800 000 000,00 €	
				- €	
				- €	
				- €	
				- €	
				- €	
				- €	
				- €	
				- €	
TOTAL				900 000 000,00 €	