

Operational tools for improving efficiency in wildfire risk reduction in EU landscapes

FIREfficient

Final Progress Report
(Period May 2015 – December 2015)

(Solsona, February 12th 2016)



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1. General reminder

Project title and website: Operational tools for improving efficiency in wildfire risk reduction in EU landscapes (FIREfficient)

Website and mail: www.fireefficient.ctfc.cat, Email: fireefficient@ctfc.cat

Calendar: 1/01/2014 - 31/12/2015 (24 month)

Beneficiary and partners:

Coordinator: **Forest Sciences Centre of Catalonia - CTFC (ES)**

AB1: **Department of Interior from the Government of Catalonia - INT-GRAF (ES)**

AB2: **European Forest Institute - Central European Regional Office and the Observatory for European Forests - EFICIENT-OEF (DE)**

AB3: **Fire Ecology and Management Foundation Pau Costa Alcubierre - PCF (ES)**

AB4: **King's College London - KCL (UK)**

Objective:

The **FIREfficient** project aims to establish a sustainable platform for efficient exchange of available knowledge in which "lessons-learned" can be made available to relevant stakeholders and public agencies at EU level, dealing with innovative operational tools and means to integrate the prediction of potential fire events into emergency strategies and land-use planning.

The Project seeks to build capacity for planning developers to enhance the transfer of best practices and lessons-learned in wildfires to planning practices and processes, through a set of knowledge management strategies.

Expected deliverables:

The specific results of the projects can be grouped in 4 areas:

- Capitalization of knowledge of innovative tools for a cost-effective wildfire risk management in the context of climate change.
- EU context adaptation of operational transfer tools for prior fire assessment and actor participatory processes
- Development of a knowledge base and "lessons-learned" platform of innovative tools and means for wildfire hazard assessment.
- Edition and dissemination of operational tools and guidelines for improving efficiency in wild fire risk reduction in EU landscapes.

Dissemination and communication activities will be a centre piece of the project, and will be addressed to the different actors that the project is targeting (e.g. fire-fighters, national authorities, scientists, forest managers, etc.).

2. General summary of project implementation process

Actions have been developed according to the action plan except minor changes regarding:

- During May 6th, 13th, 20th and 27th was held the course "Wildfire simulators for prevention management", organized by Pau Costa Foundation with the support of the FIREfficient Project. This event was developed within the aim of Task 3, Action 3.3, as a basic forest fire student guide/dossier in order to properly run a fire simulation. The documentation of the course is available in the project web page: http://fireefficient.ctfc.cat/wp-content/uploads/2014/02/WILDFIRE-analyst-course_v2.pdf
- In October 7th, a training course on the use of the crown fire hazard chard "Planificación y diseño de actuaciones y manejo del combustible forestal para la prevención de incendios forestales" has took place, as a dissemination action of the results achieved in the Task 3, Action 3.1. Further information about and course

presentation are available at:

http://fireefficient.ctfc.cat/docs/20151002_Prevenci%C3%B3%20incendis_Zaragoza_01.pdf

- In October 15th and 16th, the course “New tools for fire prevention, risk management with a territorial vision” was carried out. The course aimed to provide a new territorial vision, based on the big forest fires prevention, to the environmental professionals; according to the scope of Task 3.
Further information and conclusions of the course are available at: http://fireefficient.ctfc.cat/wp-content/uploads/2015/12/COAMB_course_summary.pdf
- The interviews to stakeholders of the deliverable 15 (questionnaires and interview in social perception of fire risk) were achieved and translated to the final report. Deliverable available at: http://fireefficient.ctfc.cat/wp-content/uploads/2014/03/deliverable15_Wildfire-social-assesment-and-governance.pdf
- According to the pending deliverable 10 (Protocol for testing fire spread models) it was finally able to be conducted the fieldwork and addressed the corresponding report and documentation. Deliverable available at: http://fireefficient.ctfc.cat/wp-content/uploads/2014/03/Deliverable-10_Protocol-for-testing-spread-models.pdf
- The Book of Guidelines (deliverable 25) was edited and published in digital version and in paper version. The paper version has been distributed through the project partners to improve the dissemination at the EU level. The digital version is available at: http://fireefficient.ctfc.cat/images/book_guidelines.pdf
- The knowledge-base platform (deliverable 21) has been created once the expert data base (deliverable 20) was confirmed and consolidated. The platform is currently working and in the phase of dissemination and spread through the potential communities users, via online. Everyone interested in take part of the forum could join it in <http://www.lessonsonfire.eu/en>
- The deliverables “Common characterization Framework on communication for transferring spatial wildfire planning” (D. 18) and “Common characterization Framework on wildfire vulnerability assessment and reduction at landscape level” (D. 19) were integrated within the book of Guidelines directly (D.25), without editing and individual report.

Dissemination actions:

- In May (26th to 29th), the CTFC has participated in the II International Conference on fire behaviour and risk, with the presentation: “Mapping wildfire defence priorities in the Pyrenees landscapes, St. Julià de Lòria case study (Andorra)”. This case study contributes to the development of Task 2, Action 2.1.
- UNECE/FAO Forest Communicators Network & the IUFRO Communications and Public Relations Working Party (Barcelona, 20th to 22th May), with the presentation: “Communication challenges for societal involvement in complex multi-actor demand in the Mediterranean”.
- In September 5th, a Journal Club was organized with the presentation “Conditions and characteristics of Òdena forest fire”.
- During 10th to 12th November, Fireefficient project and results has been presented in the I Seminar on forest fires prevention, safety and extinction into the wildland urban interface.
- In November 16th was achieved the annual training seminar of the district fire chief of Brandenburg State, where EFICIENT has participated, presenting the FIREfficient project and its results. Full information at: <http://fireefficient.ctfc.cat/?p=315>

3. Evaluation of project management/implementation process

The project management and implementation process is generally positive in terms of results achievement, actions development and partnership cooperation. The international partnership of the project is providing a several European national context in the project development and is generating positive results in terms of transferability and mainstreaming.

One difficulty identified is the general launching of the online platform “Lessons on fire” in order to spread the tool within the potential interested communities. To face this difficulty, it has been coordinate the launch with all the project partners in order to have well identified the potential target

audience and the forums most used by them (e.g. specific online forums such as social media). We are currently ongoing with the dissemination and publicity of the platform, to ensure its future development and growth, with the purpose to turn into a relevant wildfire topics forum at the European level.

4. Activities (only those inside the final progress report period are mentioned)

Task 1 Management and Reporting to European Commission

- Action A1.1 Organizational set-up of the project and project management: Started, all along the project.
- Action A1.2 Internal monitoring and evaluation of the Project: Started, all along the project

Task 3. Building capacity on anticipatory fire risk assessment for land and fire planners

- Action A3.1 Developing a set of procedures, tools and methodologies for enhancing planning capabilities to mitigate large wildfire risk: Deliverables 10 and 15 done and available in the project website.

Task 4. Developing knowledge management strategies and transfer tools

- Action 4.1 Guidelines for communication and transfer of spatial wildfire planning to end users and for community involvement: Done according to the action plan. Results available in the project website
- Action 4.2 Guidelines for assessing and reducing wildfire hazard at stand and landscape level for planners: Done according to the action plan. Results available in the project website
- Action 4.3 Developing a participatory platform of land and fire planners for large wild fire spread risk reduction: Done according to the action plan. Results available in the project website
- Action 4.4 Knowledge repository platform based on lessons learned on large fires for land and fire planners: Done according to the action plan; and still functional online. Results available in the project website and in the platform website.

Task 5. Information, dissemination and capitalization actions

- Action A5.1 Creation of the project website: Realised and updated all along the project.
- Action 5.2 Edition of the Book of Guidelines: Done according the action plan. It has been published a paper version (500 units) to reinforce the dissemination and to value the relevant content of the document into the European potential users. Due to the relevance and reception of the document, it is planned to translate the document into the Spanish (in digital version only).
- Action A5.3 Information and publicity of the project at regional/national level: Started. All along the project according the action plan.
- Action A5.4 Information and publicity actions at EU and international level: Started. All along the project according the action plan.)
- Action 5.5 Edition of the Layman's Report: Done according the action plan and available in the project website.

5. Presentation of the technical results and deliverables (achieved into last period)

Nº 10. Protocol for testing fire spread models: To summarize the main fire spread models present and its applicability to the EU landscape by means of a methodological protocol.

Nº 15. Report on Social factor and territorial dimension of wildfire risk management: managing societal involvement and cross-sectoral planning: The deliverable involves an array of social challenges that will be up for discussion while focusing on managerial aspects related to risk assessment, preparedness and mitigation as well as organizational aspects like coordination, assignment of responsibilities and communication enhancing the good governance and societal and institutional – assuming the cross- sectorality of the phenomena - involvement to achieve an efficient wildfire risk management and mitigation.

Nº 18 and 19. Common characterization framework on communication and on wildfire vulnerability assessment at landscape level: Both deliverables are included directly into the Deliv. Nº 25 "Book of guidelines".

Nº 20. Report of expert data base: The report based on transnational contributions of 183 experts aims to establishing synergies to facilitate access to and exchange of information and expertise on risk analysis, along with the adaptation of a common terminology on the risk elements are necessary to harmonize the integration planning. A report is included

Nº 21. Knowledge-based platform: Lessons on fire platform has been positioned as one of the main relevant output of the project, generating a common frame and space for professionals, experts and students around Europe interested and focused in the forest fire risk field. The platform allows generating debates, sharing quality information, finding documents in an organized way, finding expert people and asking a professional opinion about forest fires discipline. This tool with unexampled at EU level has been valued as really useful for many potential user contacted during the development phase. During the launch stage the repository of the platform it's provided with all the documents generated in the project, as well as a specific forum of the FIREfficient project. During the coming weeks, many others inputs coming from the expert panel and project collaborators are expected to be linked and available at the platform directory in order to perform the objective of quality information transferring and sharing. A report is included.

Nº 22. Report of best-cases database: The report is included into the Deliverable Nº 21.

Nº 25. Book of guidelines: The book capitalizes all the knowledge developed into the tasks 3 and 4 in order to show that resilience of forests to wildfires can be improved through proper risk governance, good forest management and landscape planning activities. In terms of contents, the Book of Guidelines represents a relevant tool to have the best updated practices and the ultimate reflections in the framework of wildfire risk reduction at the EU landscapes. This innovative approach gives visibility to many knowledge's exchanges and technical discussions between many European actors involved in the wild fire risk management, so a pan European vision and representatives of the problem is strongly achieved. The book is available in digital and paper version (English), and it is expected the translation to Spanish in order to expand its potentiality and usefully into other regions (Latin America). Dissemination has been done through identifying the relevant forums and communities by means of specialized newsletters, social media forums and the collaboration of EU regional experts.

Nº 26. Articles and Newsletters: The report is included, with all the news and dissemination actions done during the project.

Nº 28. Layman's report: To summarize the project and the information generated in a visual and schematic way is essential to disseminate to all users' profiles the understanding of the project and its results. The report is included

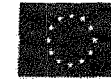
6. Evaluation of the technical results and deliverables

Although the wildfire risk management has a strong local component (in terms of administrative organisation, data and tools available, etc.) an important effort has been done offering the results in a EU frame scale and focussing the attention in those cross-sectoral components of the risk management (from mitigation to recovery phase). This is an important condition to ensure the transferability capacity of the results at cross-national level between countries and different local situations.

7. Follow-up

As follow-up activities of the project, a continuous dissemination work is ongoing by sending a formal letter explaining the results achieved and with special attention to the Book of guidelines, to the relevant identified actors with potential interest in the topics. This process will continue during next months in order to ensure all target audience is reached. Furthermore it is expected this dissemination phase doesn't finish with the end on the project calendar (31/12/2015), because of the continuity and ongoing development of the knowledge platform "Lessons on fire", which will contribute to gives visibility to the DG-ECHO mission and the FIREfficient project.

In addition, with the knowledge and experiences generated during the project, a new proposal for the present DG-ECHO call (2016) is coming up, in order to capitalize all these results and follow up to find potential answers to face the exiting gaps and challenges.



Annex: Updated T Forms

Calendar of actions and deliverables

Task ID	Task Title	Start Date	End Date	Actions	Deliverables
1	Management and reporting to European Commission	1/1/2014	31/12/2015	A1.1 Organizational set-up of the project and project management (1/1/2014 - 31/12/2015)	1st progress report (1/9/2014)
					2nd progress report (1/4/2015)
					Final progress report (31/12/2015)
					Minutes of the coordination meetings (1/1/2014 - 31/12/2015)
				A1.2. Internal monitoring and evaluation of the project (1/1/2014 - 1/4/2016)	Project's Monitoring and Evaluation System (29/1/2014)
				External Audit report (1/4/2016)	
2	Reviewing key knowledge, tools and best practices to integrate wildfire patterns assessment into land planning	1/1/2014	1/8/2014	A2.1. Review and evaluation of updated knowledge, innovative tools and practices to measure extreme fire spread risk at stand and landscape level planning (1/1/2014 - 1/7/2014)	Report on review and evaluation of knowledge (1/7/2014)
				A2.2. Review of obstacles that can hinder the integration of key innovative knowledge, tools and practices into the planning process (1/1/2014 - 1/7/2014)	Report on challenge for wild fire risk integration into land planning (1/7/2014)
				A2.3. Workshop on innovative tools and practices on wildfire hazard assessment and land planning (1/02/2014 - 1/8/2014)	Proceedings of the international workshop on wildfire risk assessment and land planning (1/8/2014)
3	Building capacity on potential fire event assessment for land and fire planners	1/8/2014	1/5/2015	A3.1. Developing a set of procedures, tools and methodologies for enhancing planning capabilities to mitigate large wildfire risk (1/8/2014 - 1/4/2015)	Protocol for testing fire spread models (1/4/2015)
					Training activities on the use of crown fire hazard charts (1/4/2015)
					Protocol for ignition risk assessment (1/4/2015)
					Tools for training in fire behaviour (1/4/2015)
					Protocol for a cost-effective assessment on fuel treatments at landscape level (1/4/2015)
Questionnaires and interviews in social perception of fire risk (1/2/2015)					



Task ID	Task Title	Start Date	End Date	Actions	Deliverables
				A3.2. Developing a methodology for incorporating large fire risk into landscape management decision making (1/8/2014 – 1/5/2015)	Methodology for incorporating large fire risk into landscape management decision making (1/5/2015)
				A3.3. Developing competence based training standards in wildfire risk planning for land and fire planners (1/8/2014 – 1/5/2015)	Training standards in wildfire risk planning (1/5/2015)
4	Developing knowledge management strategies and transfer tools	1/4/2015	1/9/2015	A4.1. Guidelines for communication and transfer of spatial wildfire planning to end-users and for community involvement (1/4/2015 – 15/8/2015)	Common Characterization Framework on communication for transferring spatial wildfire planning (15/8/2015) Included into Deliv. N° 25 (Book of guidelines)
				A4.2. Guidelines for assessing and reducing wildfire hazard at stand and landscape level for planners (1/4/2015 – 15/8/2015)	Common Characterization Framework on wildfire vulnerability assessment and reduction at landscape level (15/8/2015) Included into Deliv. N° 25 (Book of guidelines)
				A4.3. Developing a participatory platform of land and fire planners for large wild fire spread risk reduction (1/4/2015 – 15/9/2015)	Expert database (1/9/2015)
				A4.4. Knowledge repository platform based on lessons learned on large fires for land and fire planners (1/4/2015 – 15/9/2015)	Knowledge-based platform & Best-case database (1/9/2015)
5	Information, dissemination and capitalization actions	1/1/2014	31/12/2015	A5.1. Creation and maintenance of the project website (1/1/2014 – 31/12/2015)	Communication and dissemination plan (20/1/2014) Project Website (20/1/2014)
				A5.2. Edition of the book of Guidelines (1/9/2015 – 1/12/2015)	Book of Guidelines (1/12/2015)
				A5.3. Information and publicity actions at regional and national level (1/1/2014 – 31/12/2015)	Articles and Newsletters Informative material (31/12/2015)
				A5.4. Information and publicity actions at EU and international level (1/1/2014 – 31/12/2015)	
				A5.5. Edition of the Layman's Report (15/10/2015-15/12/2015)	Layman's report (15/12/2015)