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**PREVENTION ACTION INCREASES
LARGE FIRE RESPONSE PREPAREDNESS**

WP2 –Working paper on data collection

Project name: Prevention Action Increases Large Fire Response Preparedness (PREVAIL)

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1. General goal of task 2.1

The general aim of this task is to provide an overview about the funds invested in the fire management cycle in PREVAIL partner countries (Italy, Spain, Portugal and Greece), with a specific focus on financial resources allocated to fire prevention.

The PREVAIL's project vision of fire prevention goes beyond the forest sector and aims to promote an integrated cross-sectorial approach to build-up fire resilient landscapes. According to this view, the decrease or increase in forestry, farming and grazing activities in rural areas produce effects on the amount and spatial distribution of vegetation and associated fuels and, accordingly, affects the vulnerability and exposure of territories to fire. This vision, well-supported by scientific evidence (see Moreira et al., 2011¹), leads to recognize as wildfire prevention, not only measures to reduce fuel loads or change the spatial arrangement of fuels in forest areas (active prevention), but actions capable to support a well-managed landscape mosaic, through the maintenance of forestry, farming and grazing activities therein (passive prevention). In this condition, fire spreads more slowly, burns with less intensity and severity, and is less costly to suppress.

This point of view has guided data collection on budget allocated to fire prevention by different funding schemes. Data were collected for the territories of Partner countries at different levels of geographical aggregation (national/subnational/regional/case-study level), based on publicly available data sources and geographical organization of funding programmes in the territory of Partner Countries. It must be noted that a common level of data collection for Partner countries has been achieved for the most important funding scheme, i.e. the Rural Development Programme (RDP) only at country level. This because of the different levels of geographical aggregation of the RDPs in the territory of partner countries. Data are provided at subnational level for Greece (decentralized administrations) and Portugal (Azores, Madeira and Mainland) while at regional scale for Italy and Spain (based on their respective administrative Regions). In addition, during data collection data policy restrictions have been encountered different from country to country, e.g. data on RDP public expenditure that might be available at Municipality level in one country, might not be in others.

The deliverable reports therefore the data collected in the first six months of the PREVAIL project on investments and costs linked to fire prevention in Italy, Greece, Portugal and Spain, as first project deliverable product of Work package #2. (see scheme below).

¹ Moreira, F., Viedma, O., Arianoutsou, M., Curt, T., Koutsias, N., Rigolot, E., ...& Mouillot, F. (2011). Landscape–wildfire interactions in southern Europe: implications for landscape management. *Journal of environmental management*, 92(10), 2389-2402.

Activities under TK 2.2 “Cost analysis” are aimed, instead, to present estimation approaches to quantify costs of fire suppression. Ultimate aim of these two tasks is to generate knowledge to compare the economic dimensions of fire prevention and suppression. The data will be made available to all partners and, at the end of the project; they will be uploaded on the project website to be freely downloadable.

One of the key benefits expected from this task is to promote in decision-makers like RDPs Managing Authorities an improved awareness of the links between some rural development measures and fire management. In addition, the financial envelope for implementing (direct) wildfire prevention measures traced by this task, will also help understanding the priority allocated by RDPs Managing Authorities to the fire management problem in PREVAIL partner Countries. These results will provide also relevant information to better organize budget allocation and use in future RDPs.

TASKS AND DELIVERABLES:

Task 2.1: Data Collection

D2.1 Workshop #1 (Month 6 – July 2019)

D2.2 Working paper on data collection (Month 6 – July 2019)

Task 2.2: Cost analysis

D2.3 Report on cost analysis (Month 12 – January 2020)

CALENDAR

M	1	2	3	4	5	6	7	8	9	10	11	12
Activity	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
2.1												
2.2												
2.3												

2. Overview of funds involved in the fire prevention

As a first step of the analysis, we have provided an overview of the main sources of funding that can support fire prevention (directly or indirectly). This analysis allows us also to understand which

are the main sources for funding and also to rank them in term of relative contribution to public expenditure.

2.1 European Structural and Investment Funds (ESIF)

For the period 2014-20, UE cohesion policy is financed by the European Structural and Investment Funds (ESIF). The ESIF include five different funds, covered by Regulation (EU) No 1303/2013, the so-called ‘Common Provisions Regulation’.

The components of Structural Funds are:

- the European Regional Development Fund (ERDF),
- the European Social Fund (ESF),
- the Cohesion Fund (CF);
- the European Agricultural Fund for Rural Development (EARDF),
- the European Maritime and Fisheries Fund.

Among them, three programs can contribute to support fire prevention.

The **ERDF** provides financial support for the development and structural adjustment of regional economies, economic change, enhanced competitiveness as well as territorial cooperation throughout the EU.

The **CF** supports exclusively Member States whose Gross National Income (GNI) per inhabitant is less than 90% of the EU average. It aims to reduce economic and social disparities and to promote sustainable development. The Fund contributes to financing environmental measures and trans-European transport networks. For the 2014-2020 period, the Cohesion Fund concerns, among others, Greece and Portugal.

The **EARDF** supports European policy on rural development. To this end, it finances rural development programmes across the Member States and the regions of the Union. Programmes are designed in cooperation between the European Commission and the Member States, taking into account the strategic guidelines for rural development policy adopted by the Council and the priorities laid down by national strategy plans.

2.2The thematicobjective 5: “Promoting Change Adaptation, Risk Prevention and management”

EU can support the forest fire prevention actions and/or investments through the Investment Priority 5 of the ERDF, EAFRD and CF. This investment priority is related to the thematic objective 5 “Promoting Change Adaptation, Risk Prevention and management” of the ESIF 2014-2020.

Under the broad theme of “Climate Change Adaptation, risk prevention and management” the EAFRD, ERDF and CF funds invest in a range of priority actions to promote climate change adaptation, risk prevention and management, including fire prevention.

For the countries involved in PREVAIL, the total EU financial support to the thematic objective 5 amounts to 10.2 € billions for the period 2014-2020. The total UE financial support sums the financial supports by ERDF, EAFRD and CF.

The EAFRD financial support corresponds to about 74% of the total EU financial support related to the thematic objective 5. On the other hand, ERDF and CF provide funding for 20% and 6% of the total EU financial support to the 4 countries.

At country level, Italy benefits of 5.0 bn EUR, Spain of 2.4 bn EUR, Portugal of 1.7 bn EUR and Greece of 1.5 bn EUR to the thematic objective 5 (Fig. 1). Portugal and Greece have received EU support also by CF, for 37% and 7.8% of the UE total received, respectively.

With regard to specific funds, in all the project’s involved countries, the EAFRD is the main source of funds covering from almost 60% to more than 90% of the total UE financial support for Objective 5. Specifically, in Spain, the EAFRD covers up to 93.2% of the total UE financial support for the same thematic objective (Fig. 2).

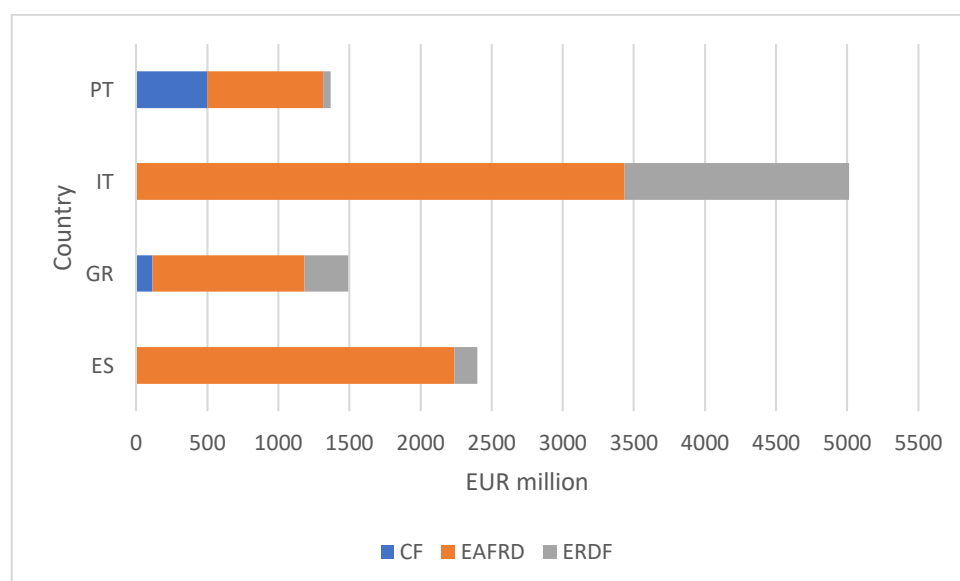


Figure 1. Total EU financial support to the Thematic Objective 5 of European Countries involved in the Prevail project (Source: <https://cohesiondata.ec.europa.eu/>, updated to November 2019)

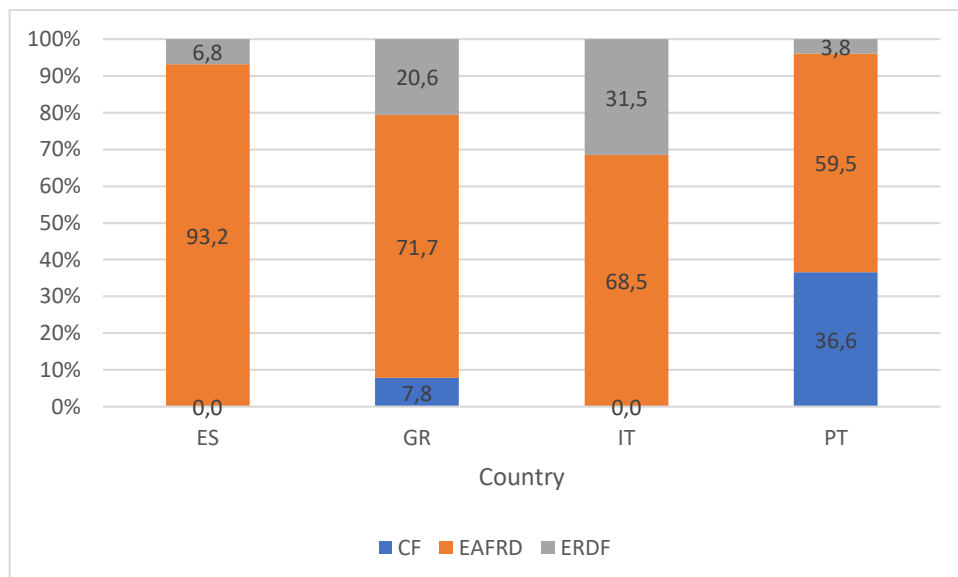


Figure 2. Percentage of structural funds covering thematic Objective 5 for each Country involved in the project (Source: <https://cohesiondata.ec.europa.eu/> updated to November 2019).

3. Methodology for data collection

The analysis of funds invested in forest fuel management treatments has been based on collection of data from several sources including:

- official EU data: amount of EU funds invested for fuel management and post-fire restoration actions in partner countries (Rural Development Program - RDP)²;
- funds for specific demonstration projects (e.g. Life projects);
- results of published relevant studies;
- operational applications and price lists in Mediterranean countries.

Since the main source for investments in wildfire prevention is the RDP, a core activity under this task was the selection of RDP measures specifically aimed at wildfire prevention or otherwise expected to indirectly contribute to wildfire prevention. The RDPs for the period 2007-2013 and 2014-2020 have been reviewed.

However, it should be considered that in the RDP 2007-13 there is no measure with a one-to-one relation with direct wildfire prevention. The RDP measure more closely related with direct wildfire prevention (or post-fire restoration) is the “2.2.6: Restoring forestry potential and introducing prevention actions” of the RDP 2007-2013. However, depending on the priorities of geographic area covered by the RDP, the 226 funding can be allocated to prevention of forest hazards other than wildfires (e.g. storms, avalanches). For this reason, we have opted to collect some in-depth data on activities actually financed by RDPs for some Regions of high priority for (winter and summer) wildfire occurrence in Italy. Such a deepening of data collection, which is not feasible for all RDPs, is intended to demonstrate that a realistic understanding of the financial dimension of public expenditure on active and passive prevention for a given geographical area cannot be separated from an in-depth analysis of the specific formulation of RDP measures made by Management Authorities. Indeed, some Regions can use measure 226 to finance activities other than fire prevention, but can fund as well fire prevention under measures not specifically devoted to fire risk management.

²Data source RDP 2007-2013:

<https://enrd.ec.europa.eu/policy-in-action/rural-development-policy-in-figures/rdp-monitoring-indicator-tables/financial-and-physical-indicators>;

Data source RDP 2014-2020:

https://enrd.ec.europa.eu/policy-in-action/rural-development-policy-in-figures/rdp-summaries_en

The collection of data regarding the amount of “programmed” and “realised” expenditure for direct and indirect measures of fire prevention has been performed for all the Partners Countries for the RDP 2007-2013 (Annex 8.1), based on publicly available official datasets. A similar level of detail in data collection was not achievable for the RDP 2014-2020, due to a different structure of the program.

The data have been collected following a multi-scale approach including (i) National level, (ii) Subnational and Regional level (iii) municipality and (iv) case study level. This approach allowed us to have a general picture of the expenditure for all the selected Countries but also to provide a detailed analysis for some exemplificative regions.

4. RDP

4.1 RDP 2007-2013

4.1.1 Data at National level (Italy, Greece, Portugal, Spain)

The full dataset collected about programmed funding and total expenditure under the framework of RDP 2007-2013 is reported in the Annex 8.1. This financial information allows to derive some key facts about level of investments in direct forest risk prevention, across the examined selected Countries. In this regard, in Fig. 3 the percentage of the programmed expenditure for the measure 226 over the total programmed expenditure is compared. For the reasons explained above, the 226 financial envelope could not have been necessarily fully allocated to active fire prevention. However, this data well reflect the relative importance allocated to prevention of (and restoration after) forest hazards out of all activated RDP measures, wildfire being one of the most important o in the examined Countries.

Furthermore, it is also possible to compare the rate of realisation of the measure across countries, to assess the actual level of implementation of prevention actions in the territory (Fig. 4).

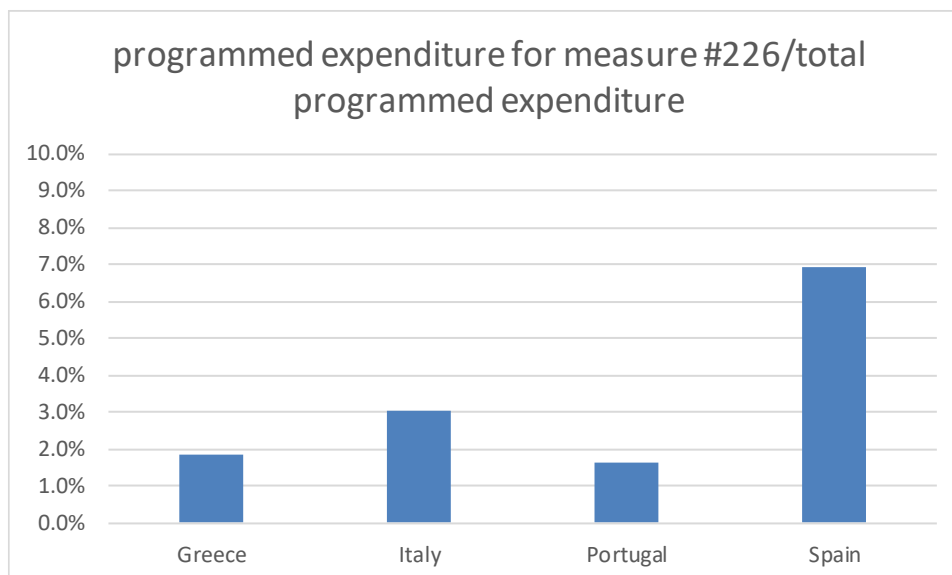


Figure 3. Percentage of the programmed expenditure for the measure 226 (RDP 2007-2013) over the total programmed budget of the national RDP (Source: <https://enrd.ec.europa.eu/> updated to June 2015)

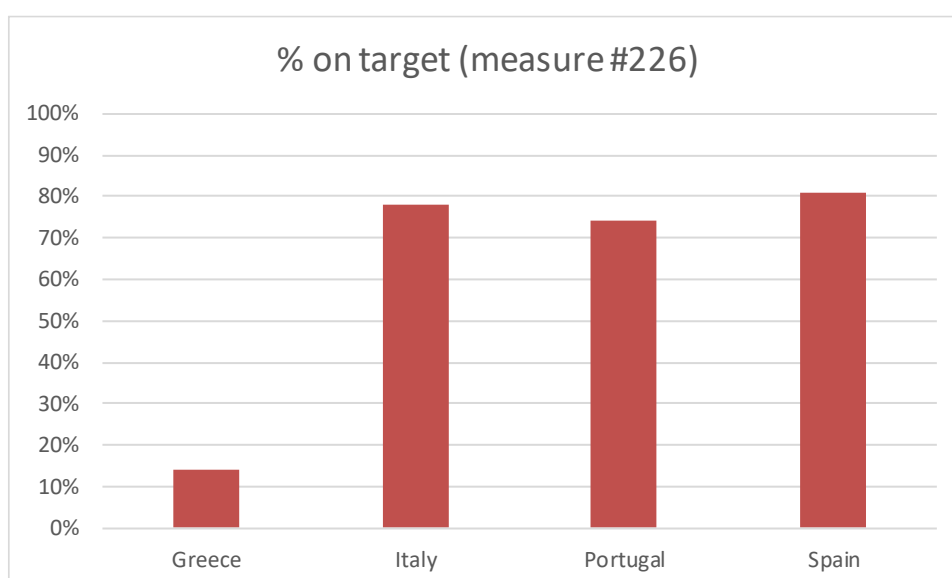


Figure 4. Percentage of measure #226 (RDP 2007-2013) on target across the partner Countries (Source: <https://enrd.ec.europa.eu/> updated to June 2015)

4.1.2 Data at Decentralized Administration Level (Greece)

The funds of the RDP for Greece are administered by the Ministry of Rural Development and Food. The rural development policy for Greece was implemented through the Rural Development Programme 2007-2013 (RDP) focusing on the following Axes:

- AXIS 1: Improvement of the Competitiveness of the Agricultural and Forestry Sector
- AXIS 2: Improvement of the Environment and the Countryside
- AXIS 3: Quality of Life in Rural Areas and Diversification of the Rural Economy
- AXIS 4: Implementation of LEADER Approach

Regarding Measure 226, two of the three actions considered by the description of the measure were relevant to forest fires³:

- Action 1: "Improvement of the fire prevention conditions for the fire protection of forests and forest lands and the restoration of forests and forest lands which have been damaged mainly by fires". Foreseen budget: 40.5 million €.
- Action 3 - "Reforestation projects. Highland flood and anti-erosion corrosion restoration works of burned areas". Foreseen budget: 28.0 million €.

The calls were issued by the General Direction of Forests and Forest Environment, of the Ministry of Environment and Energy. Eligible authorities were the local Forest Service Offices and the Municipalities. The General Direction was also responsible for evaluating the proposals.

There are 13 Regions in Greece (Fig.5) administered by an elected Regional Head. However, in parallel, there are 7 Decentralized Administrations managed by a “Coordinator” who is appointed by the Government. The Decentralized Administrations are in charge of those state agencies that manage public property and cannot be managed by elected officials under the Greek Constitution. Among them are the Forest Service Offices. Thus, regarding territories, each of the Decentralized Administrations covers the area of 1-3 Regions (Fig.6).

The data are not presented at the Region Level. As the administration of RDP Measure 226 is done by the General Direction of Forests and Forest Environment and involves mainly Local Forest Service Offices, the data are aggregated at the level of Decentralized Administrations, which are in charge of the Forest Service Offices, and finally by the General Direction of Forests and Forest Environment (i.e. National level). The rate of realisation of measure 226 for the seven Decentralized Administrations are reported in Figures 6 and 7.

³ The third action is “Action 2: Flood and erosion prevention projects.”

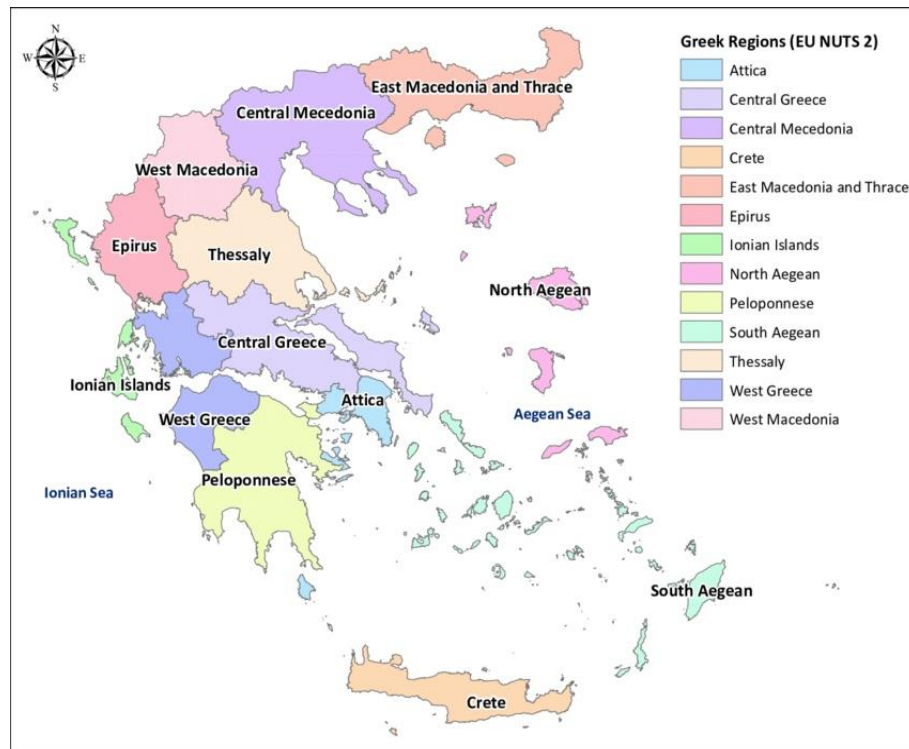


Figure 5. The 13 Regions of Greece

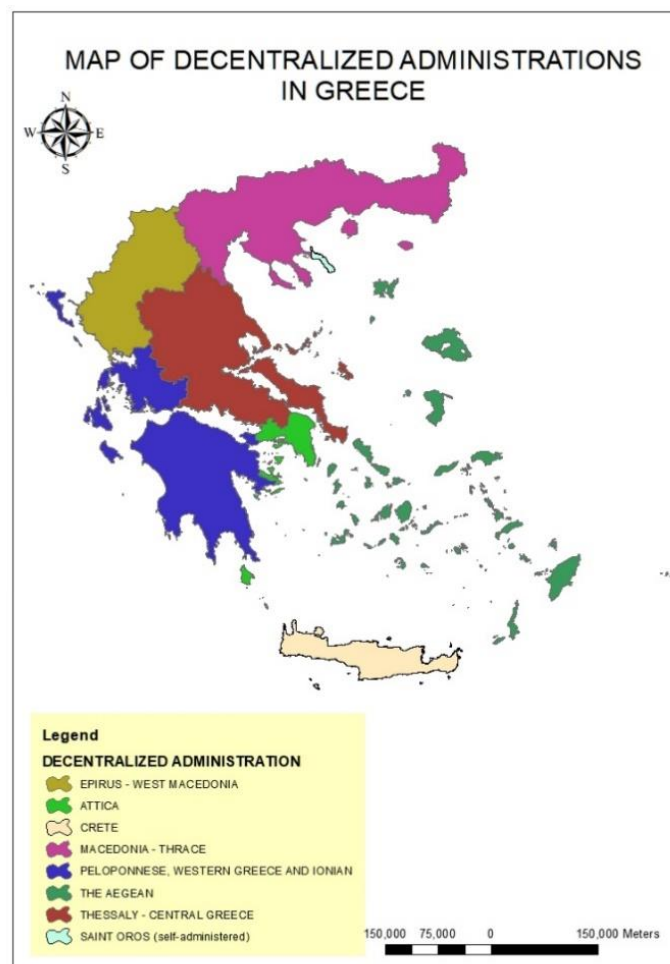


Figure 6. The seven Decentralized Administrations of Greece

Regarding Measure 226 (Action 1), sixty-three (63) proposals were approved. They had a total budget of 15,708,621.85 €. By the end of 2015, the level of pay-out of the projects reached 30.77%. The rest of the funding, that concerned 62 of the 63 projects, was transferred to the RDP (2014-2020), sub-measure 8.3.

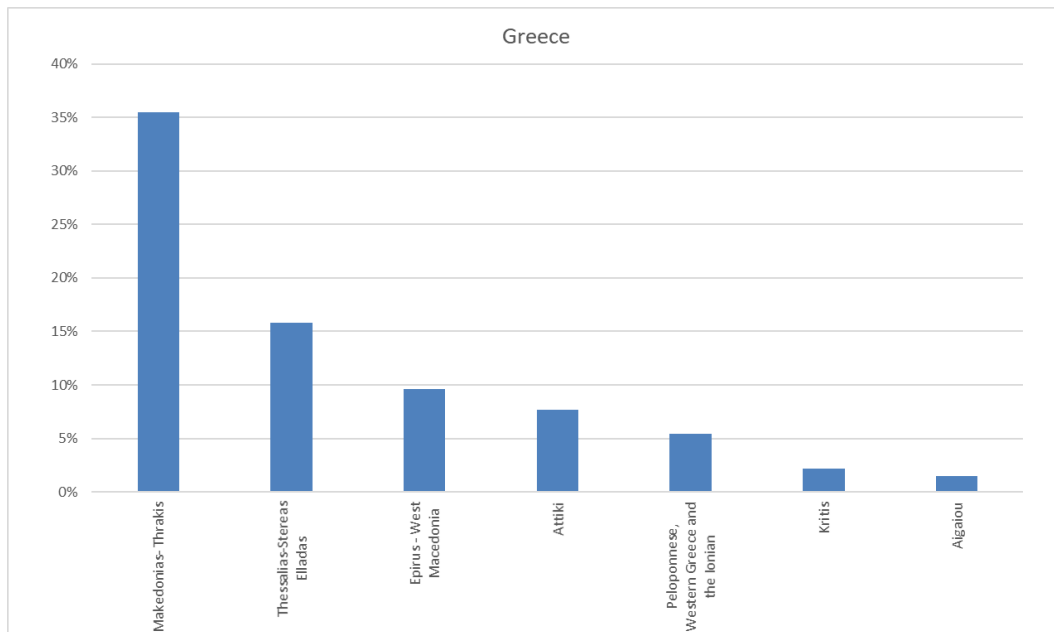


Figure 7. Percentage of the programmed expenditure at sub-national and regional level for the measure 2.2.6 over the total programmed budget of the RDP (2007-2013) (Data Source: Ministry of Environment and Energy, General Direction of Forests and Forest Environment).

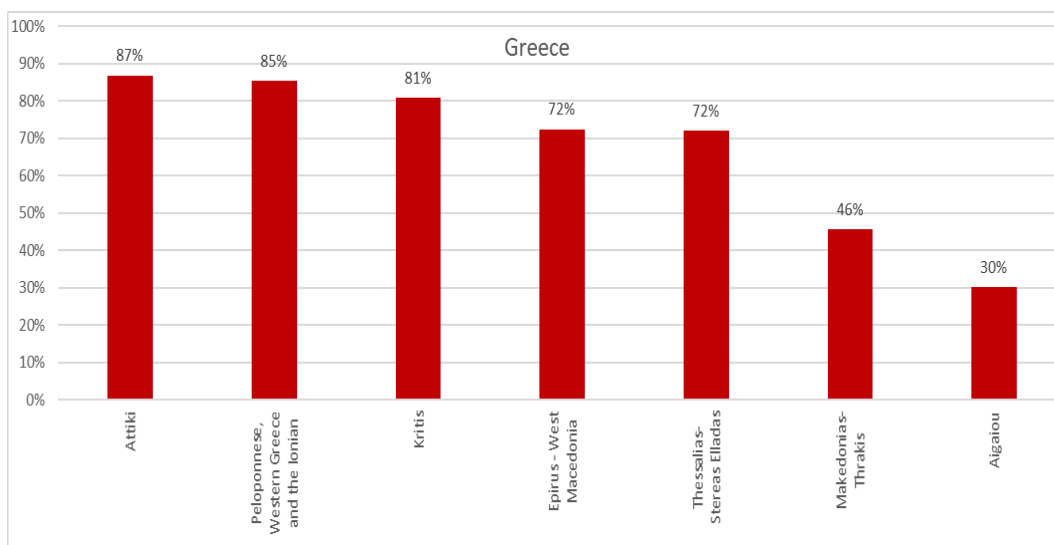


Figure 8. Percentage of realisation of measure #226 in the subnational and regional RDPs of the Greece. (Data Source: Ministry of Environment and Energy, General Direction of Forests and Forest Environment).

4.1.3 Data at Regional level (Italy, Portugal, Spain)

The data collected about programmed funding and total expenditure under the framework of RDP 2007-2013 at subnational or regional level is reported in the Annex 8. The percentage of the programmed expenditure for the measure 226 over the total programmed expenditure and its rate of realisation are reported in Fig. 9 and Fig. 10, respectively.

For a better understanding of the spatial distribution of public expenditure for (direct) forest fire prevention, we have produced for all the Countries involved in the project a comparison among fire danger at NUTS3 level (according to ESPON⁴), forest cover (according to Corine Land Cover) and public expenditure on measure 226 per hectare of forest⁵ (Fig. 11 to 14). It is worth noting that there is no way to devise from expenditure data the actual investments per hectare of forest in different countries, as publicly available data do not report the total forest area benefiting from RDP 226 subsidies. Therefore, the public expenditure on measure 226 per hectare of forest is intended just as a proxy of the intensity of the investment, to allow for comparison between different Regions.

The data about public expenditure has been reported for regions (NUTS2) in the case of Italy and Spain, at decentralized Administrations for Greece and at NUTS1 Level for Portugal.

⁴ Schmidt-Thomé, P. (2005). The spatial effects and management of natural and technological hazards in Europe. Final Report of the European Spatial Planning and Observation Network (ESPON) project, 1(1), 1-197.

⁵ The public expenditure on measure 226 per hectare of forest has been calculated as the ratio between the total public expenditure at regional (Italy, Spain) or subnational (Greece, Portugal) level and the total amount of forests and other wooded areas (i.e. classes 3.1 and 3.2 of Corine Land Cover 2006).

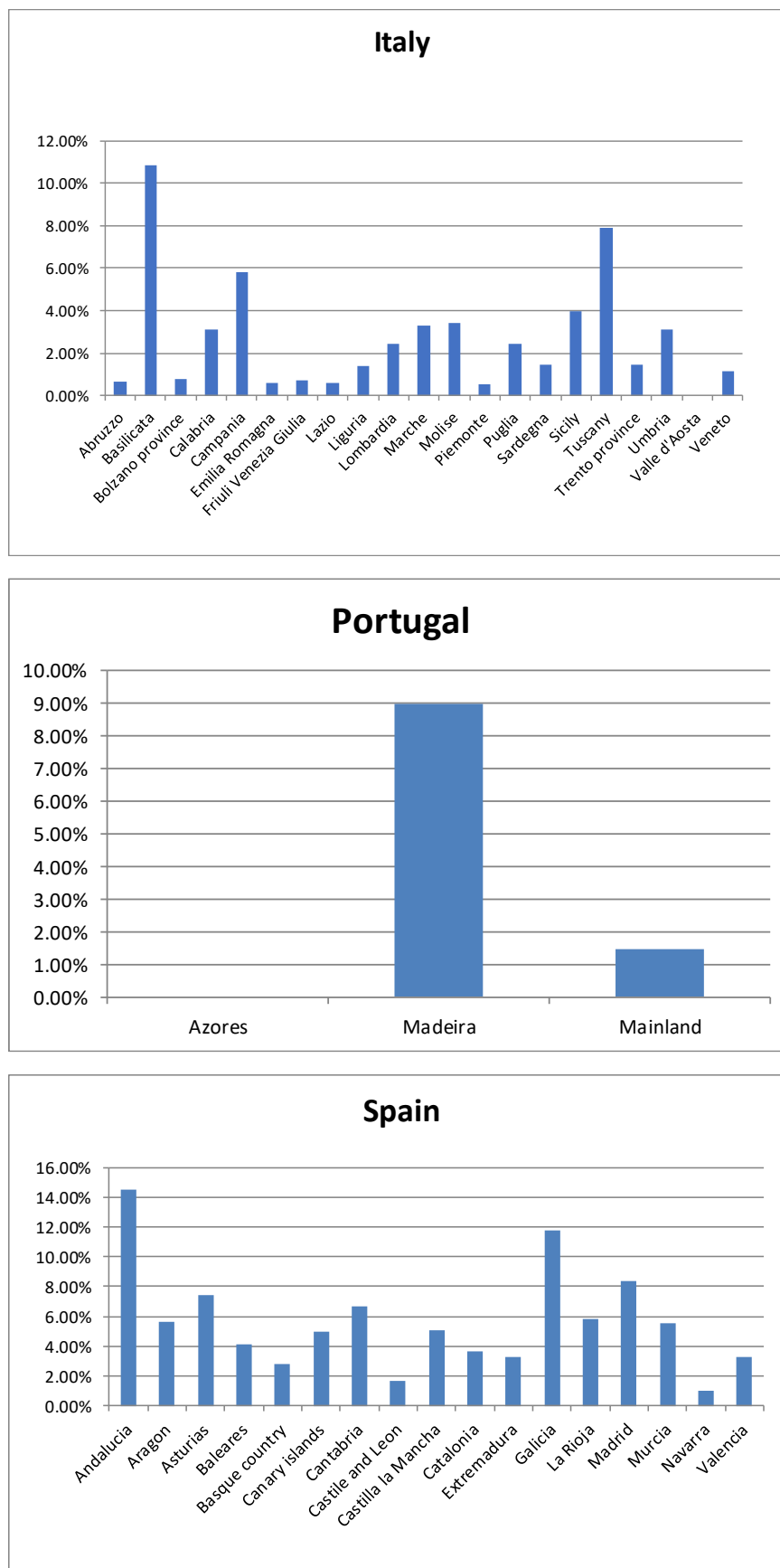


Figure 9. Percentage of the programmed expenditure at regional level for the measure 226 (RDP 2007-2013) over the total programmed budget of the national RDP (Source: <https://enrd.ec.europa.eu/> updated to June 2015)

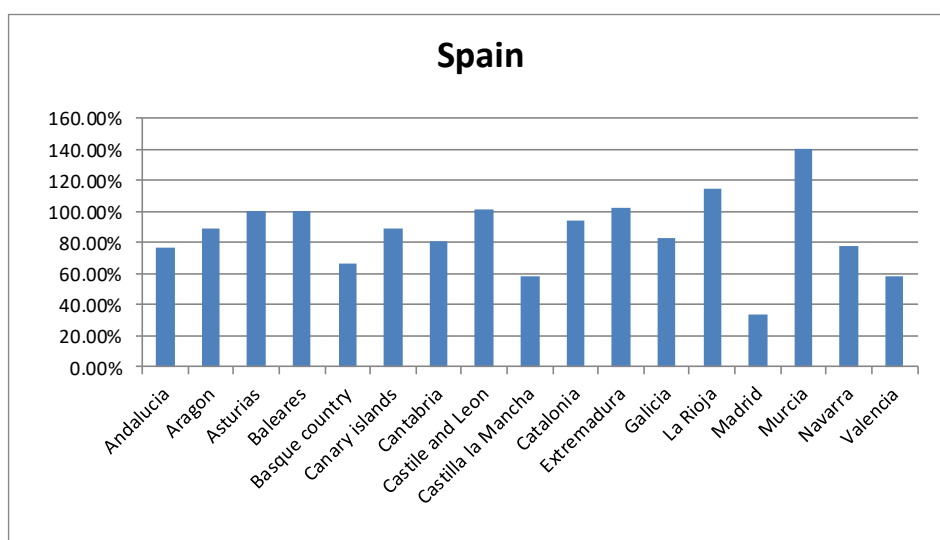
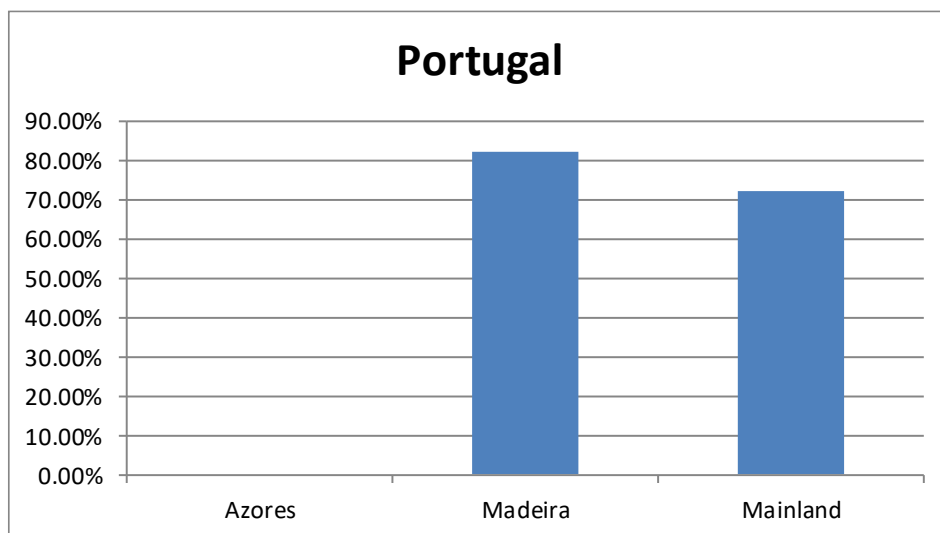
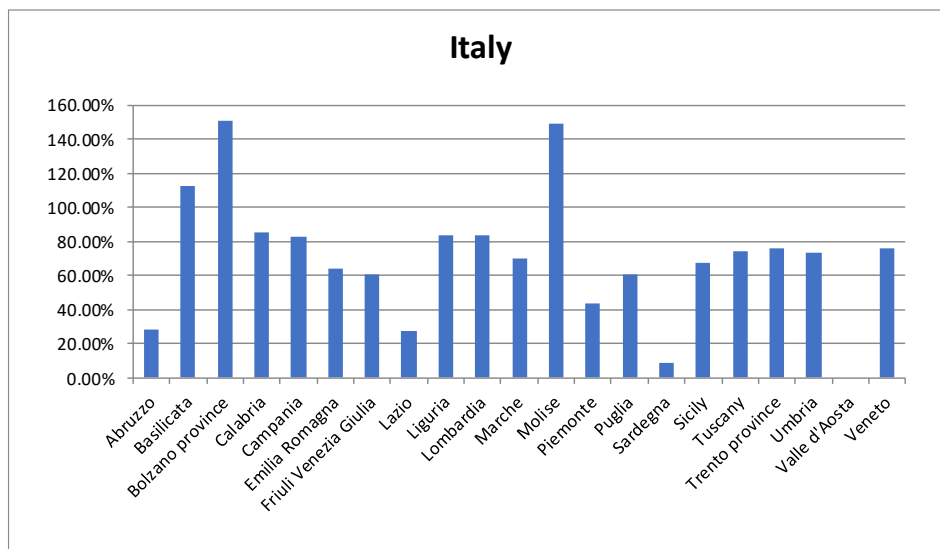


Figure 10. Percentage of measure #226 (RDP 2007-2013) on target in the regions of the partner Countries(Source: <https://enrd.ec.europa.eu/> updated to June 2015)

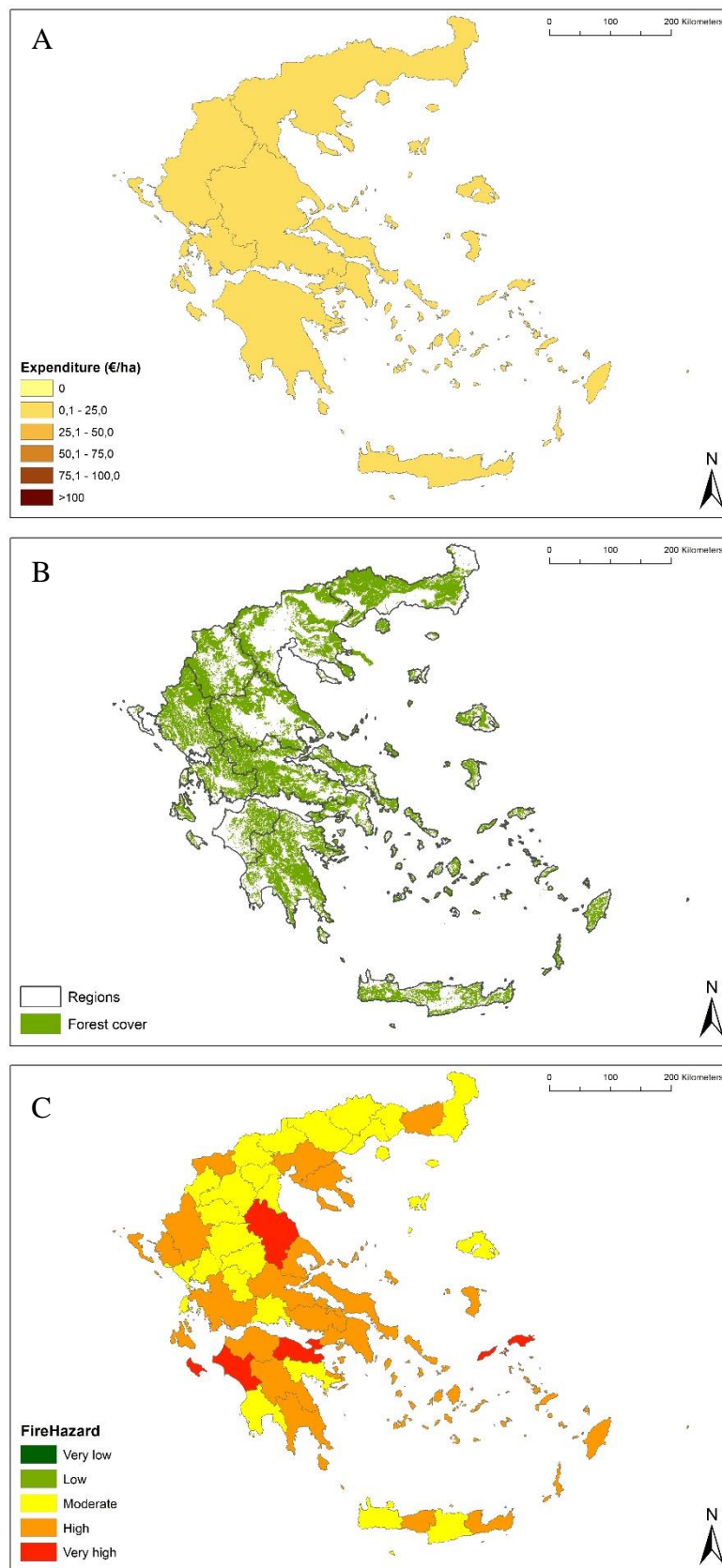


Figure 11. Comparison among (A) public expenditure for the measure 226 of the RDP 2007/2013 (expressed in € per hectare of forest for each decentralized administration), (B) forest cover (Corine Land Cover 2006), and (C) Fire hazard (according to ESPON, 2005) for Greece.

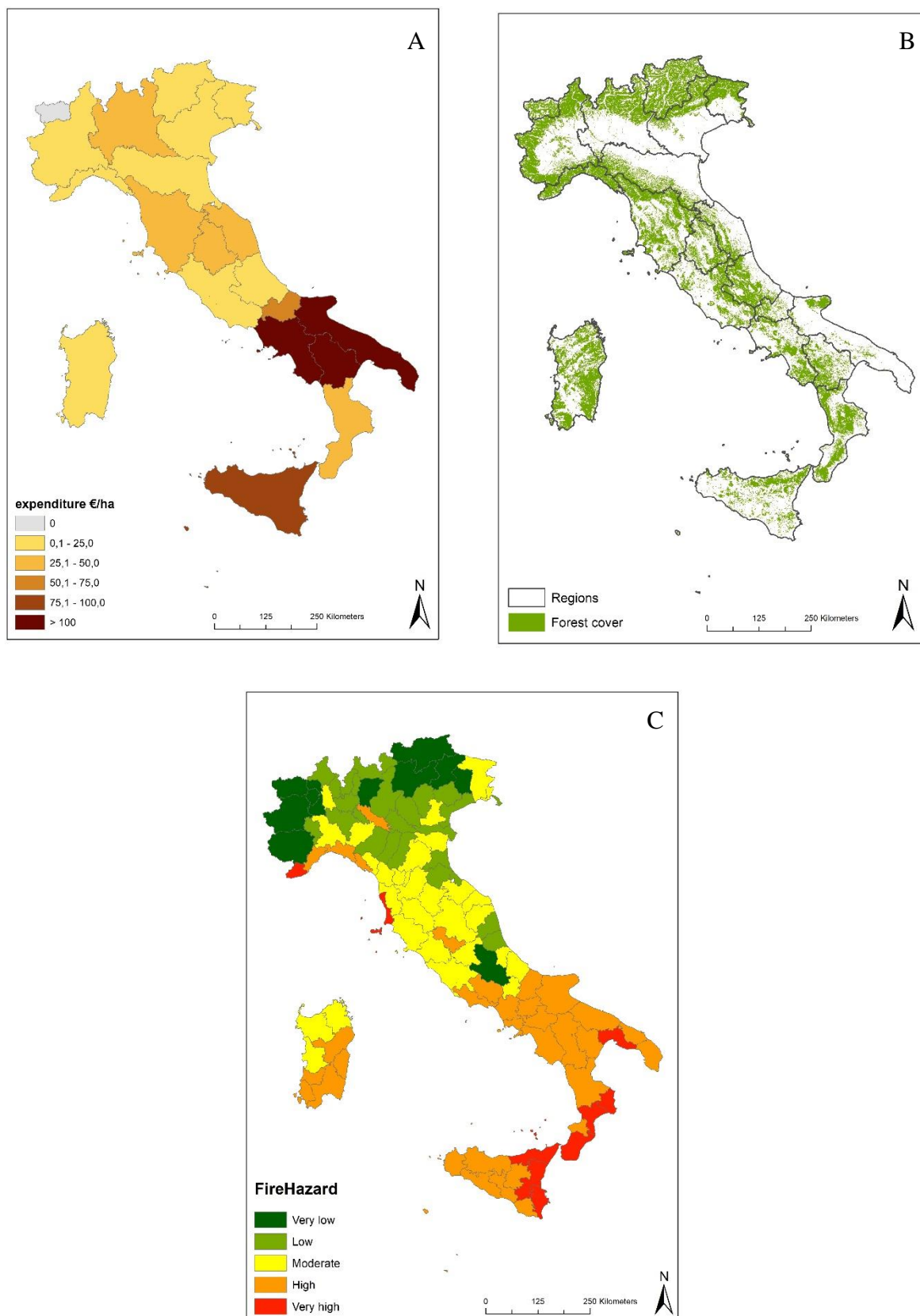


Figure 12. Comparison among (A) public expenditure for the measure 226 of the RDP 2007/2013 (expressed in € per hectare of forest for each region), (B) forest cover (Corine Land Cover 2006), and (C) Fire hazard (according to ESPON, 2005) for Italy.

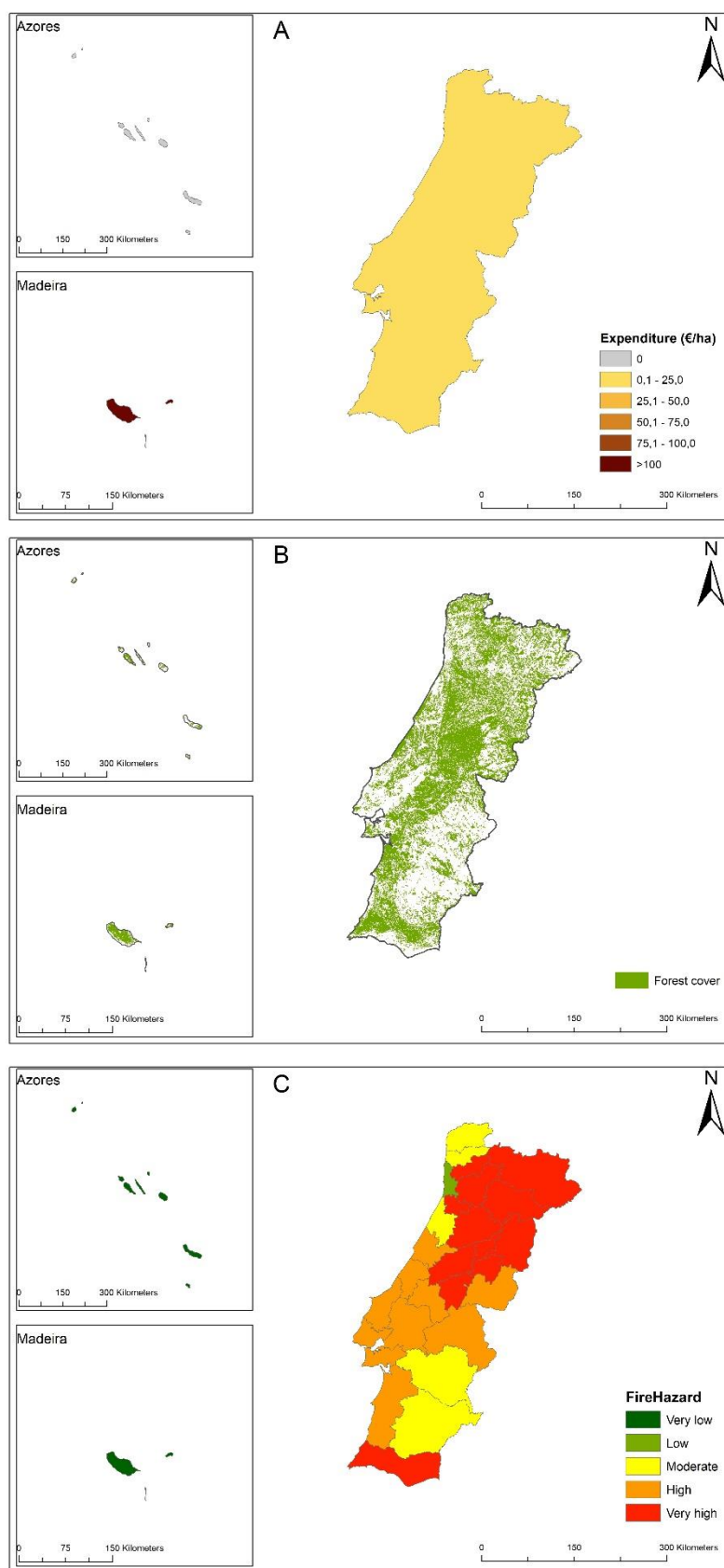


Figure 13. Comparison among (A) public expenditure for the measure 226 of the RDP 2007/2013 (expressed in € per hectare of forest at NUTS1 level), (B) forest cover (Corine Land Cover 2006), and (C) Fire hazard (according to ESPON, 2005) for Portugal.

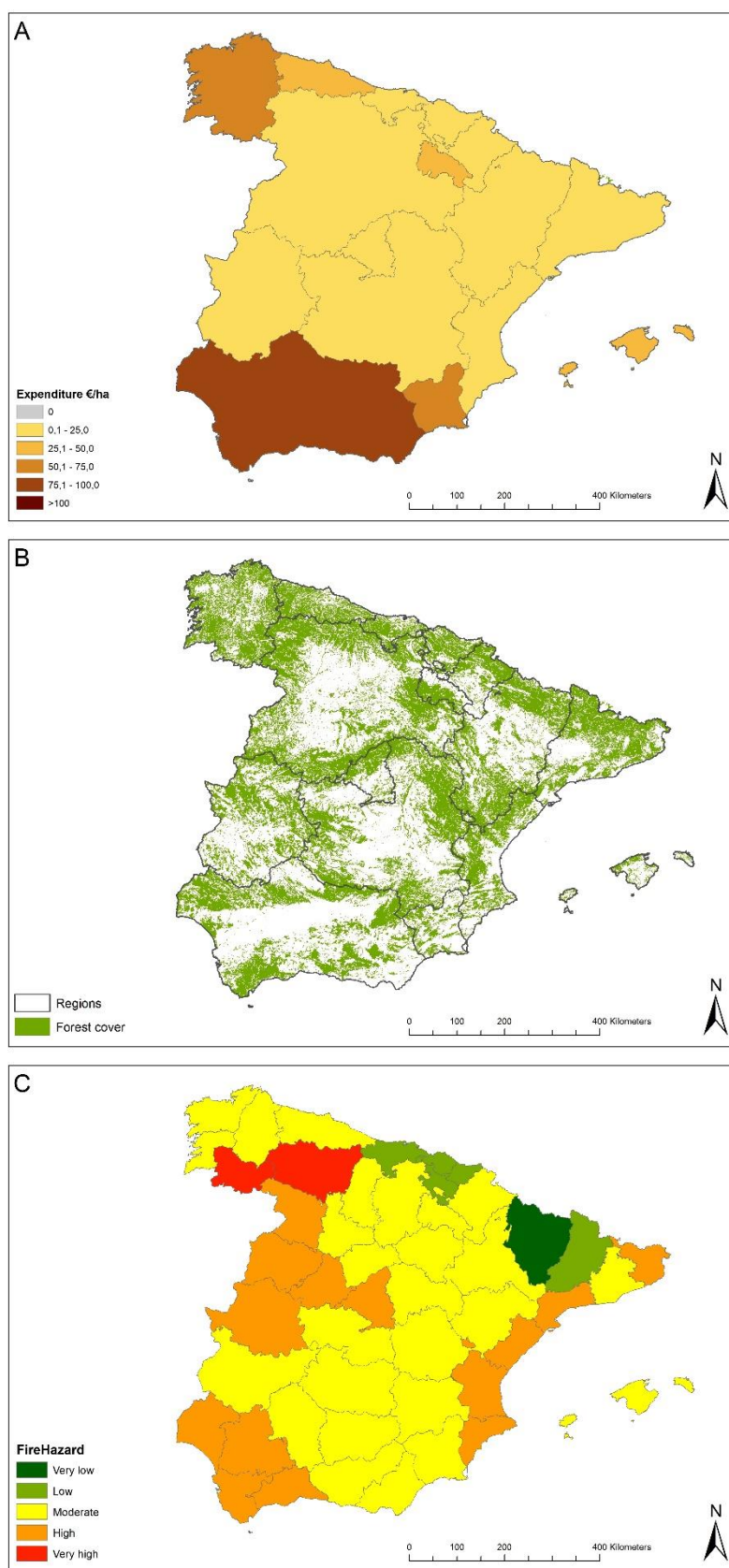


Figure 14. Comparison among (A) public expenditure for the measure 226 of the RDP 2007/2013 (expressed in € per hectare of forest for each region), (B) forest cover (Corine Land Cover 2006), and (C) Fire hazard (according to ESPON, 2005) for Spain.

4.1.4 Classification of RDP measures according to their effect on fire prevention

Moreira et al. (2011) have highlighted that fire risk has increased in the last decades due to an increase of landscape homogeneity and fuel accumulation. Population decline, agricultural and pastoral land abandonment (and the subsequent natural regeneration of forests), and policies promoting forest cover, particularly in former agricultural land, have driven the “rural exodus syndrome” and caused a widespread increase in vegetation biomass over large areas of the Mediterranean Europe, mainly in mountain areas, and a subsequent increase in fire hazard.

The authors report that to counteract fire hazard increase in fire prone Countries “direct” fire prevention measures (e.g., isolation by fuel breaks, area-wide fuel modification and fuel type conversion), which have been proven to be ineffective under extreme weather conditions, have to be supported by policies aimed to increase landscape heterogeneity and resilience. Indeed, fire hazard and post fire damages can be reduced by “indirect” measures aimed at improving the socio-economic conditions of people living in rural areas, promoting new immigration to these regions, and fostering activities such as agriculture and livestock grazing.

Bearing in mind these considerations, we have proposed a reclassification of RDP measures according to their direct or indirect role in fire prevention. This exercise can also help to give a more precise picture of the effect of RDP measures on the whole cycle of fire prevention.

We used the list of drivers proposed by Moreira et al. (2011)⁶ (Table 1) as a baseline to reclassify RDP measures, thus allowing to base the whole analysis on an objective evaluation of the different RDPs. A list of drivers of landscape change was associated to each measure after an analysis of its content. Depending on the effect of the measure on such drivers, we have then associated to each measure a synthetic code describing their “direct” (A) or “indirect” (B) effect on fire hazard reduction (Table 2), as shown in Fig. 15. In the case of “indirect” fire prevention we have differentiated activities influencing forest fuel (B1), landscape mosaic (B2) and social structure (B3).

We have tested such classification on 6 case studies at regional level in Italy (i.e. Puglia, Lazio, Tuscany, Sardinia, Sicily, Piedmont). The rationale of this exercise is that Management Authorities can formulate the aims and content of the measures differently, according to the peculiarities of their geographical area. Therefore, the classification reported in Table 2 was applied to an in-depth analysis of the formulation of RDP measures given by Management Authorities, in order to derive a

⁶ The authors have synthesized the main findings of a large number of scientific publications reporting causes and drivers which can increase fire hazard.

realistic assessment of the share of RDP measures having a direct, indirect or no-effect on fire prevention across case studies.

Drivers	Landscape patterns	Fire hazard	Code
Decrease of farming activities	Forests + Shrublands + Agricultural areas -	+	A
Decrease of pastoral activities	Forests + Shrublands + Grasslands and pastures -	+	B
Population ageing and decline/ Emigration	Forests + Shrublands + Agricultural areas -	+	C
Afforestation/ reforestation	Forests +	+	D
Decreased exploitation of timber and wood resources	Forests + Shrublands +	+	E
Increase of urban, tourist and industrial developments	Forests - Shrublands - Urbanized areas +	+ (-)	F
Increase of farming activities	Forests - Shrublands - Agricultural areas +	-	G
Increase of pastoral activities	Forests - Shrublands - Grasslands and pastures +	- (+)	H
Population increase/ Immigration	Forests - Shrublands - Agricultural areas + Urbanized areas +	- (+)	I

Table 1. Drivers of landscape change according to Moreira et al., 2011. Each driver was associated by the authors to positive and/or negative consequences on landscape patterns and fire hazard. Each driver was coded with a letter to facilitate the analysis.

	Classes and sub-classes	Code	Definition and examples	Relevance for fire prevention
DIRECT MEASURES OF FIRE PREVENTION	ACTIVE PREVENTION	A	Action directly related with fire prevention as: firebreaks, water points, fuel management in strategic points, etc. <i>Example of measure in the 2007-2013 RDP: 226 - Restoring forestry potential and introducing prevention actions</i>	+++
INDIRECT MEASURES OF FIRE PREVENTION	PASSIVE PREVENTION	B	Actions involving fuel removal, through the maintenance of forestry and agriculture activities on the territory, which indirectly affects fuel loads distribution at landscape level.	
	Forestry production	B1	Actions related with forest management and forest products mobilisation (wood and non-wood forest products – except grasslands, see below): selective and commercial thinning, clear cuttings, cork exploitation, roads constructions for wood mobilisation, etc. <i>Example of measure in the 2007-2013 RDP: 122 - Improvement of the economic value of forests, 123 - Adding value to agricultural and forestry products, 226 too.</i>	++
	Maintaining mosaic landscape and grazing	B2	Actions related with the crop lands and mosaic landscape maintenance, and the related farming and grazing activities (including both: grasslands and complementary grazing in the forest understory). <i>Example of measure in the 2007-2013 RDP: 126 - Restoring agricultural production potential, 222 - First establishment of agroforestry systems on agricultural land</i>	++
	Other societal and structural support to rural development	B3	Actions of support to rural development: training, extension services, support for business, basic services for the economy and rural population, etc. <i>Example of measure in the 2007-2013 RDP: 112 - Setting up of young farmers, 341 - Skills-acquisition and animation measure with a view to preparing and implementing a local development strategy</i>	+
	SUPPRESSION	C	Actions related with fire suppression and emergency management. <i>Example of measure in the 2007-2013 RDP: Normally, they are not included into RDP</i>	Na
	NO EFFECT	D	Actions no related with fire prevention, preparedness, response and recovery of burnt areas. Actions not funded .	Na

Table 2. Proposal of classification of RDP measures according to their direct (code A) and indirect (Codes from B1 to B3) effect on fire hazard reduction. Codes C (measures supporting fire suppression) and D (no effect) were also added in order to be sure a code is given to all of the RDP measures. Types of measures can have a direct effect in the short period (+++), an indirect effect in the medium period (++) or in the long period (+).

Drivers	Landscape patterns	Fire hazard
Decrease of farming activities	Forests ↑ Shrublands ↑ Agricultural areas ↓	↑
Decrease of pastoral activities	Forests ↑ Shrublands ↑ Grasslands and pastures ↓	↑
Population ageing and decline/ Emigration	Forests ↑ Shrublands ↑ Agricultural areas ↓	↑
Afforestation/reforestation	Forests ↑	↑
Decreased exploitation of timber and wood resources	Forests ↑ Shrublands ↑	↑
Increase of urban, tourist and industrial developments	Forests ↓ Shrublands ↓ Urbanized areas ↑	↓ ↑
Increase of farming activities	Forests ↓ Shrublands ↓ Agricultural areas ↑	↓
Increase of pastoral activities	Forests ↓ Shrublands ↓ Grasslands and pastures ↑	↓ ↑
Population increase/immigration	Forests ↓ Shrublands ↓ Agricultural areas ↑ Urbanized areas ↑	↓ ↑

Moreira et al., 2011

Classes and sub-classes	Definition and examples	Equivalence
ACTIVE PREVENTION (A)	Action directly related with fire prevention as: firebreaks, water points, fuel management in strategic points, etc. <i>Example of measure in the 2007-2013 RDP: 226 - Restoring forestry potential and introducing prevention actions</i>	DIRECT MEASURES OF FIRE PREVENTION
PASSIVE PREVENTION	Actions involving fuel removal, through the maintenance of forestry and agriculture activities on the territory, which indirectly affects fuel loads distribution at landscape level.	INDIRECT MEASURES OF FIRE PREVENTION
Forestry production (B1)	Actions related with forest management and forest products mobilisation (wood and non-wood forest products – except grasslands, see below): selective and commercial thinning, clear cuttings, cork exploitation, roads constructions for wood mobilisation, etc. <i>Example of measure in the 2007-2013 RDP: 122 - Improvement of the economic value of forests, 123 - Adding value to agricultural and forestry products, 226 too.</i>	
Maintaining mosaic landscape and grazing (B2)	Actions related with the crop lands and mosaic landscape maintenance, and the related farming and grazing activities (including both: grasslands and complementary grazing in the forest understory). <i>Example of measure in the 2007-2013 RDP: 126 - Restoring agricultural production potential, 222 - First establishment of agroforestry systems on agricultural land</i>	
Other societal and structural support to rural development (B3)	Actions of support to rural development: training, extension services, support for business, basic services for the economy and rural population, etc. <i>Example of measure in the 2007-2013 RDP: 112 - Setting up of young farmers, 341 - Skills-acquisition and animation measure with a view to preparing and implementing a local development strategy</i>	

Prevail, 2019

Figure 15. Example of assignment of classes and subclasses according to the drivers influencing fire hazard associated to each measure

Such an analysis reveals that figures on measure # 226 available at national level or regional level, offer a partial and even biased picture of the contribution of RDP measures to active wildfire prevention (Fig. 16). When looking at the active measures (A) there are remarkable differences across case studies in terms of percentage of expenditure over the total RDP. Indeed, some Regions have spent only a negligible part of the total budget on active prevention (nearly 0%). Furthermore, some measures (e.g., 227Non-productive investments) can be either allocated to active prevention or not and this may influence substantially the total expenditure. On the other hand, measures having an indirect effect on fire prevention are dependent of the specific aims of the measures at regional level and this may remarkably influence their effect on the drivers at landscape scale. The results of this detailed analysis are reported in annex 8.4 and summarized in the Fig. 16.

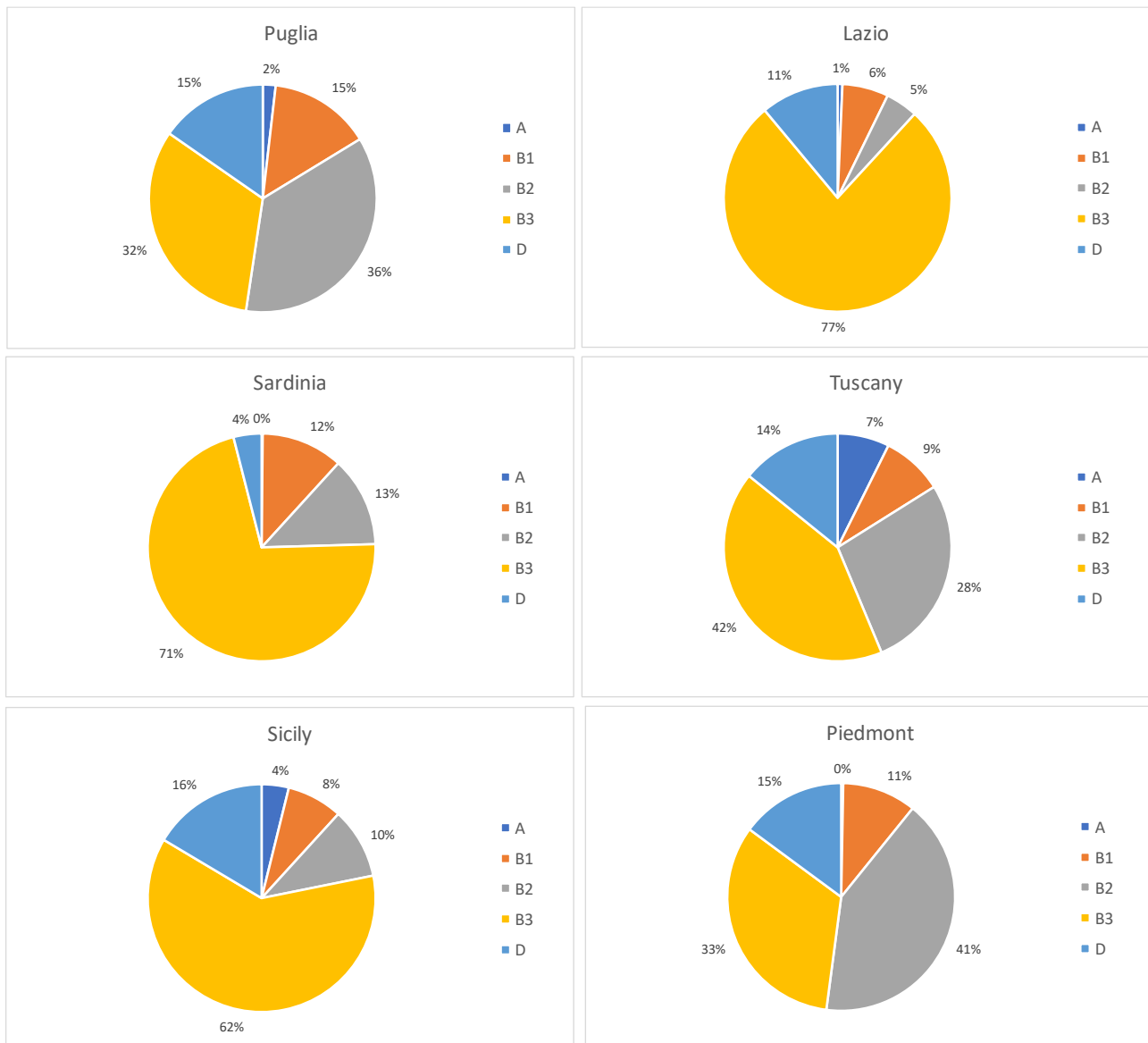


Figure 16. Percentage of total expenditure (period 2007-2014) associated to direct (A) and indirect (B1, B2, B3) fire prevention in the 6 regional case studies. The measures labelled with “D” resulted ineffective.

4.1.5 Data at municipality level

Data about expenditure for each RDP measure has been also retrieved at a finer level of geographical aggregation, where possible, i.e. municipality level. The database has been gathered for all Municipalities in Italy and for a sample of municipalities in Portugal (N=128;mainland municipalities)and Catalonia (N=30).Data on RDP expenditure at municipality level has been processed to derive the expenditure for measure 226 and integrated with socio-demographical and territorial variables, as reported in the Table 3.

Acronym	Indicator/variable	Calculation (source)	Year
Rural development indicators			
E226	Total expenditures (measure 2.2.6) in total rural development expenditures	%	2007-2013
E226land	Total expenditures (measure 2.2.6) in total forestland	Euros/km ²	2007-2013
Territorial variables			
ELEV	Average municipal elevation	(m) ⁷	-
DEN	Population density	(inhabitants/km ²) ⁸	2011
URB	Share of built-up area in total municipal area	% (CORINE Class 1) – EEA	2018
CROP	Share of cropland in total municipal area	% (CORINE Class 2) – EEA	2018
FOR	Share of forest in total municipal area	% (CORINE C. 3.1) – EEA	2018
SHR	Share of shrub and/or herbaceous vegetation associations in total municipal area	% (CORINE C. 3.2) – EEA	2018
OPEN	Share of open spaces with little or no vegetation	% (CORINE C. 3.3) – EEA	2018
SIZE	Average farm size	(ha) ⁹	2010

Table 3. Variables associated to each municipality in the case studies

⁷Sources: ISTAT (Italy), Official statistics of the Country (Portugal, Catalonia).

⁸Sources: ISTAT (Italy), National census (Portugal, Catalonia).

⁹Sources: ISTAT (Italy), data not available for Portugal and Catalonia.

4.1.6 Rural development and forest fires' measures in Italy, Portugal and Catalonia: an analysis exercise

Italy

In Italy, a very comprehensive database, which includes the amount of expenditures per individual 2007-2013 RDP measure in each municipality is available (source: National Research Centre of Politics and Bio-economics). This database allows a large number of analyses, which can be carried out at a particularly disaggregated spatial level.

Considering only the municipalities that reported expenditures in the specific measure 2.2.6 during the rural development program 2007-2013 (N=847), a correlation analysis (non-parametric Spearman coefficients) was developed in order to correlate two variables (E226 and E226land) with the territorial characteristics of related municipalities (Tab. 3).

Such analysis allows examining whether the expenditure's structure, shows any characteristic spatial pattern, e.g. evident clusters representing territorial districts that have attracted a similar amount of financing over time. The basic idea behind this correlation exercise is that the ability to attract and spend within the specific rural development measure, with reference to more general characteristics of the territory, highlights apparent (or more latent) phenomena of policy coordination (e.g. driven by regional authorities or catalysed by local actors). On the contrary, a spatial fragmentation of the expenditure's structure may reflect lower environmental effectiveness of rural development measures on a local scale.

The results of this analysis show that amount of expenditures reported on the total expenditure for rural development funds was not related to any territorial variable (Tab. 4). On the contrary, a moderate correlation was observed between the total amount of expenditures reported per km² of forest and the main territorial variables. Interestingly, the amount of the expenditure by forest area increases in peri-urban (URB) municipalities and areas with high agricultural specialization (CROP), while is negatively correlated with the municipalities with a high naturalistic and forest vocation (FOR, SHR, OPEN). The expenditure intensity per unit of potential forest area, therefore, presents an asymmetrical distribution across the national territory, being higher in the typically non-forest contexts and progressively decreasing with the degree of rurality.

Variable	E226	E226land
ELEV	0.05	-0.37
DEN	-0.05	0.37
SIZE	-0.09	-0.14
URB	-0.06	0.28
CROP	-0.09	0.44
FOR	0.13	-0.35
SHR	0.00	-0.32
OPEN	-0.02	-0.25

Table 4. Results of a non-parametric Spearman correlation analysis between territorial variables and the per cent share of expenditures of measure 2.2.6 in total rural development expenditures (E226) and the total amount of expenditures of measure 2.2.6 per km² of forest (municipal scale analysis). Bold indicates significant correlations at $p < 0.05$ after Bonferroni's correction for multiple comparisons.

Portugal

An exercise similar to the analysis conducted for Italy was developed for a subset of municipalities in Portugal, i.e. 128 out of a total of 308 municipalities in the country. The sample analysed in this study mainly includes rural and moderately peri-urban municipalities in the mainland, located in predominantly hilly and mountainous areas (elevation 50 m and 700 m a.s.l.), and population density between 100 inhabitants/km² and 300 inhabitants/km². However, some municipalities have a higher concentration of population (5 municipalities have more than 500 inhabitants/km²). Based on the elementary data collected, it was possible to calculate the total expenditure incurred by each municipality for the protection of forests against forest fires. In addition, some context variables were calculated for each municipality, in order to better assess the role of geographical gradients on the spatial structure of public spending.

A total of 30,880,800 € were spent in the investigated municipalities for forest fire protection interventions. This sum amounts to an average expenditure of 714 euros per km² of municipal area and 3105 euros per km² of forest (Code 3.1.x of the CORINE land cover cartography). 38 out of 128 municipalities have not received any specific funding. Lastly, expenditure on forest protection measures against fires represented 50.5% of the entire expenditure for forest protection under the intervention measures of the Portuguese rural development plan over the 2007-2013 period.

As for Italy, a correlation analysis between the amount of expenditure by measure and the geographical and socio-economic context variables was also developed for the sample of Portuguese municipalities (Table 5). It should be noted that both the amount of expenditure per km² of forest and the percentage of expenditure for fire protection interventions on the total expenditure

slightly increase along the altitude gradient and in municipalities with the lowest concentration of forests. This means that the expenditure for fire protection measures is more concentrated in hilly areas, with medium-small forest extension and mixed, agricultural-forest landscape. On the one hand, these results highlight the strong spatial heterogeneity in the structure of public spending for this specific rural development measure. Municipalities with high forest specialization spend less (in both absolute and relative terms) on fire protection measures than municipalities with high agricultural specialization. Certainly, the spatial structure of spending may reflect how forests in mountain municipalities could be more vulnerable to the risk of fire since in those areas forest types are very flammable. Besides, land property in Portugal is particularly fragmented, especially concerning the forest area, thus inducing further limits on a homogeneous public expenditure on the territory and attentive to all forest conservation dimensions. On the other hand, a lower intensity of fire protection measures in regions with a large forest area could suggest a lower efficiency of these measures, especially in a future scenario in which the vulnerability of these areas to fires may increase due to climate change and to the anthropogenic pressure increase.

Variable	Expenditures per km ² of forests	Expenditures in total expenditures for forests
Population density	-0.05	-0.01
Elevation	0.28	0.02
% urban areas	0.02	0.10
% cropland	0.04	0.13
% forests	-0.44	-0.30

Table 5. Results of a non-parametric Spearman correlation analysis between selected territorial variables and (left) the total amount of expenditures of a measure for forest protection against wildfires per km² of forests and (right) the per cent share of expenditures of a measure for forest protection against wildfires in total rural development expenditures for forest protection (municipal scale). Bold indicates significant correlations at $p < 0.05$ after Bonferroni's correction for multiple comparisons.

Catalonia

The expenditure for measure 2.2.6 of the region's rural development plan in the 2007-2013 programming was made available for a sample of 30 Catalan municipalities, distributed both in mountain and in hilly areas, with use of forest, agricultural and mixed land. The total expenditure for measure 2.2.6 in these municipalities amounts to 2,094,575 €, approximately 1944 € per km² of

the forest area. As already observed in Portugal and Italy, the spatial structure of expenditure is very heterogeneous also in Catalonia; 4 out of 30 forest municipalities did not incur expenses under measure 2.2.6 and the intensity of the expenditure is particularly variable on a municipal scale. Findings from the correlation analysis showed that the amount of expenditure per km² of the forest is not correlated with altitude, population density and urban areas. On the contrary, this indicator correlates positively with the percentage of agricultural areas and negatively with the percentage of forest areas in each municipality investigated. Also in Catalonia, as in the other examples studied, the high spatial fragmentation of spending on this measure goes beyond territorial specificities and reflects the possible lack of spatial organization and coordination.

4.2 RDP 2014-2020

The general structure of the RDP for the period 2014-2020 has changed compared to the previous period. Indeed, the allocation of funds in the current RDP is organized in a hierarchical way with (i) measures, (ii) sub-measures and (iii) operations. Furthermore, several macro-categories named “Focus areas (FA)” have been identified based on relevant cross-cutting issues addressed (e.g. “Restoring, preserving and enhancing biodiversity”, “Fostering carbon conservation and sequestration in agriculture and forestry”). Measures or sub-measures can be related either to one or several FAs depending on their direct or indirect influence on the target of the FA.

This structure has made the RDP 2014-2020 more difficult to be analysed for our scope, as the most relevant piece of information on financed fire prevention actions are to be searched at sub-measure or operation level. Indeed, most of the publicly available monitoring indicators (e.g. total expenditure) are provided for FAs or measures. Fig. 17 shows the programmed funding for “investments in forest areas” (Measure 8). Measure 8 does not exclusively fund forest fire prevention (sub-measure 8.3) or post-fire recovery (sub-measure 8.4), but also afforestation (sub-measures 8.1 and 8.2) or the increase of the environmental and the economic value of forests (sub-measures 8.5, 8.6 and 8.7). In any case, even if not directly linked to fire prevention, all these activities indirectly reduce the risk of fires since they fund activities associated to fuel management and landscape heterogeneity conservation.

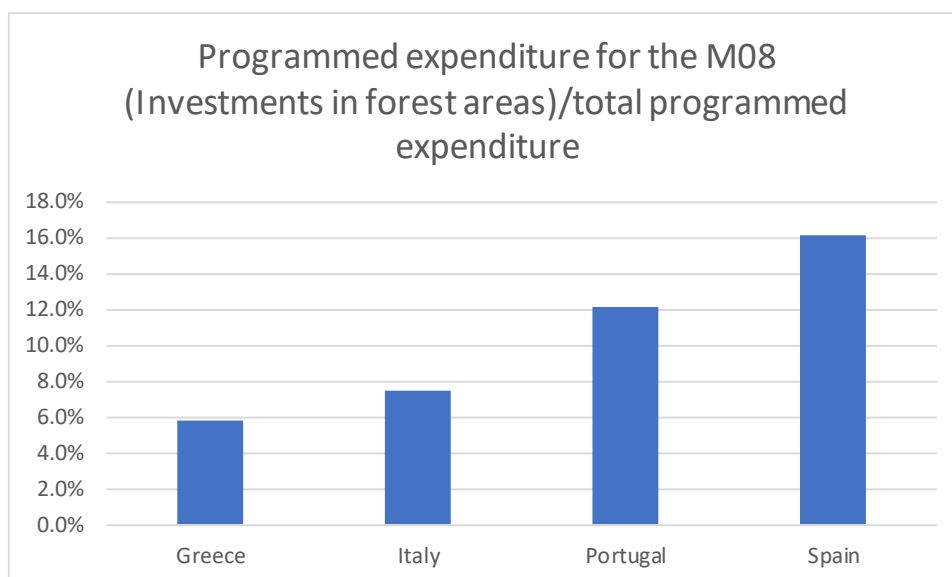


Figure 17. Percentage of the programmed expenditure for the measure M08 over the total programmed budget of the national RDP

The expenditure at sub-measure or operation level can be obtained only through a detailed analysis of the RDP calls, which are in many cases still open. The data deriving from this analysis, which will also be associated to a qualitative analysis of the RDP calls on a set of case studies, will be discussed during the workshop #1 to be held in October as a part of the WP2 of the PREVAIL project.

5. Other funding schemes

Fire prevention can be promoted and carried out also through pilot projects on demonstration sites. Such activities play also the role of raising awareness among population and policy makers and transferring knowledge and new technologies among Countries and regions. There are several funding schemes that fund such activities (ERDF, Cohesion funds, LIFE, INTERREG). In the PREVAIL project we analyzed data from official available sources to frame the relevance of ERDF, CF, LIFE and INTERREG programmes for funding for fire prevention actions across the project members' countries.

5.1 ERDF

The programme ERDF for the period 2014-2020 is managed at national level in Portugal while it is by regions in Italy, Greece and Spain. Each region has the possibility to specify funding priorities. However, in general, the ERDF focuses its investments on several key areas including (i) Innovation and research; (ii) The digital agenda; (iii) Support for small and medium-sized enterprises (SMEs);(iv) The low-carbon economy.

Given the possibility of each region to adapt the funding scheme to their peculiarities, there is a wide range of projects that can be funded by this programme. We have therefore reviewed, through official data sources¹⁰, only the ERDFs which envisaged to fund projects under the thematic object 5 (climate change and risk prevention). Among them, we have further filtered the results using the following keywords: Forest fire; Fire prevention; Fire protection.

The result of this analysis showed that in Greece two regions have considered fire prevention among priorities: Attica and Western Macedonia. Attica has initially allocated the 8.4% (over a total of 679,680,704.00 €) of the EU budget for "Promotion of climate change adaptation and of risk prevention and management: anti-flood works and enhancement of fire and civil protection mechanisms". Then Attica has increased this amount up 95,577,123€ in 2019. The region has spent

¹⁰ The following sources were used to retrieve data:
- https://ec.europa.eu/regional_policy/it/atlas/programmes

66,415,610.43€ as of 31/12/2019. Western Macedonia has allocated to risk prevention (including fire risk prevention) 22,354,612€ spending so far the 35%. Continental Greece and Central Macedonia have spent a budget for risk prevention (4,397,552.31€ and 8,223,034.43€, respectively) but fire prevention is not explicitly mentioned.

In Italy fire prevention is not explicitly mentioned in regional plans but 12 regions have allocated a specific budget for promoting climate change adaptation, risk prevention and management (Table 6) with an average expenditure of 35,215,034€ in the period from 2014 to 2019. It is worth noting that, in many cases, this amount can represent an overestimation of funds spent for fire prevention (e.g. Liguria region explicitly states that funds are for *adaptation to climatic change, prevention and risk management while reducing hydrogeological risks and erosion*)

Regional program	Total expenditure (€)
Abruzzo– ERDF	5753250.46
Bolzano – ERDF	9689979.38
Calabria - ERDF/ESF	76432926.98
Campania - ERDF	89461991.27
Lazio – ERDF	15119474.37
Liguria – ERDF	7932709.12
Marche – ERDF	4994178.11
Puglia - ERDF/ESF	100444844.4
Sardegna - ERDF	15192768.8
Sicilia – ERDF	78306239.65
Trento – ERDF	4038511.77
Veneto – ERDF	15213539.48

Table 6. Total expenditure in ERDF programs in Italy for the funding priority “promoting climate change adaptation, risk prevention and management” during the period 2014-2019.

Four Spanish regions have allocated ERDF funds to risk prevention and management: Andalucía (11,287,980.04€), Canary Islands (98,957.06€), Galicia (18,258,799.85€) and País Vasco (11,715,729.3€). However, only the last two regions have included fire risk among the priorities.

In Portugal, only the autonomous region of Azores has spent so far for risk prevention(32,943,398.23€).

5.2 Cohesion fund

Cohesion funds, as reported in the §2, has been activated only for Portugal and Greece, being the Gross National Income (GNI) per inhabitant of those countries lower than 90% of the EU average.

In Portugal, under the framework of the CF, the “Thematic Operational Programme: Sustainability and Efficiency in the Use of Resources” has been activated for the period 2014-2020, covering the entire Portuguese territory. It concerns structural interventions around three priority axes, each covering one single thematic objective associated with the environment.

The programme aims at increasing disaster resilience and developing disaster management systems. The CF activated investments are in various environmental sectors(waste and water, soil protection, and rehabilitation, biodiversity and promotion of ecological systems, greener infrastructure).Between the expected outputs is to “double the number of forest fires extinguished within 24 hours”. Under this programme 231,317,851.9€ have been spent so far. However, it is worth to note that funds allocated to CF have contributed only indirectly to fire prevention, given the wide range of possible projects’ topics.

Under the CF framework, Greece has activated the “transport infrastructure, environment and sustainable development” operational program. Around 3.5% (4,151,762.98€) over the total budget (115,496,158€) programmed for “Promoting climate change adaptation, risk prevention and management” has been spent in the period 2014-2019. However, even in this case, the projects funded are not directly linked to fire prevention since they are focused on mainly in the sectors of solid waste, waters, waste waters, flood risk prevention, environmental pollution and smart energy efficiency.

5.3 Other European funding programs for fire prevention

In the PREVAIL project we reviewed the main projects dealing with fire prevention. Data were collected from official available sources¹¹ and cover the period from 2001 to 2019. We included in the dataset also the ongoing projects. We have found a total amount 40 of projects carried out in fire prevention, which are listed in Annex 8.5, in order to complete the picture on possible sources of funding on fire prevention in Europe (see Annex 8.5). These types of funding schemes can help to provide demonstrative or pilot projects that can be replicated in other similar conditions. However, further replications of pilot projects (outside INTERREG or LIFE) have to be funded by other programs (e.g. RDP) or directly by landowners.

¹¹ The following sources were used to retrieve data:

- https://ec.europa.eu/regional_policy/en/projects
- <https://ec.europa.eu/programmes/creative-europe/projects/>
- <http://ec.europa.eu/environment/life/project/Projects/index.cfm>

The search was carried out using the following keywords: Forest fire; Fire prevention; Fire protection.

6. Costs of active prevention activities

6.1 Scientific literature review

A literature review, based on Scopus, the largest abstract and citation database of peer-reviewed literature, has been implemented to identify other methodologies or case studies related to the assessment of fire prevention costs. In particular, the search was focused on fuel management costs as fire prevention costs.

The literature search has been based on the following key words: “fuel management”, “forest fire” and “costs”. Scopus selected 101 scientific papers published from 2010 to the present. Anyway, only very few articles (2) can be considered relevant to the subject under investigation. This list was supplemented by examining references of these articles to other publications of the previous decade (2000-2010).

Both the articles relevant for our study have been published in 2016. The paper by Peter et al. (2016)¹² reports on the achievements and program costs for on-reserve forest fuel management under the Federal Mountain Pine Beetle Program and Mountain Pine Beetle Initiative in British Columbia. From 2002-2010 after forest management plans were in place, approximately 2700 hectares were treated through various combinations of thinning, pruning, fuel reduction and fuel removal. Costs to implement fuel treatments varied widely based on a number of factors including size of the area treated, initial stand conditions and density, terrain, treatment details, and site-specific values requiring protection. Authors found that the average cost for silvicultural treatments was \$2613 per hectare, although this only includes the cost of crews carrying out the work, and does not include administration, planning, and layout. Most treatments (96.5% of the area treated) cost less than \$5000 per hectare, while the two most expensive treatments cost over \$8000 per hectare. The least expensive treatment occurred in low-density pine stands and amounted to \$268 per hectare.

The second selected paper deals with a European case study, i.e. the Puglia region in Italy¹³. The authors have conducted a cost-effectiveness analysis to estimate how much fuel must be treated to determine fuel load removals with the lowest cost per hectare in WUI context. They have estimated the amount of investment needed to remove the fuel load in order to understand the effectiveness of the fuel removal in unaffected WUIs. The sporadic implementation of silvicultural practices (e.g.,

¹²Peter, B., Milovanovic, M., Cataldo, N., & Scott, M. (2016). On-reserve forest fuel management under the Federal Mountain Pine Beetle Program and Mountain Pine Beetle Initiative. *The Forestry Chronicle*, 92(3), 295-297.

¹³ Elia, M., Lovreglio, R., Ranieri, N. A., Sanesi, G., & Laforzezza, R. (2016). Cost-effectiveness of fuel removals in mediterranean wildland-urban interfaces threatened by wildfires. *Forests*, 7(7), 149.

thinning) without adequate harvesting coupled with the impossibility of using prescribed burning (not allowed in this part of Italy) have led to a considerable and continuous accumulation of dead fuel, especially “flash fuels” which are the primary carrier of surface fires. Therefore, the authors have focused the analysis on a specific practice, i.e. the removal of fine dead fuel load in WUI forest stands. This type of fuel includes needles, litter, and fine dead stems (<0.6 cm in diameter), which ignite readily and are consumed rapidly under hot and dry weather conditions.

After conducting a market research, they assessed the cost for removing the amount of fine dead fuel load¹⁴, including labour, transport, and disposal costs, to be €210.50 per ton. The average amount of time estimated to remove 1 ton of dead fuel from the study sites is 1.6 h, with €62.70 being the hourly labour cost, €20.00 the cost of transporting 1 ton of dead fuel to disposal sites within a distance of 100 km from the forest, and €90.30 the cost for disposal. These estimates were verified by comparing them to the costs reported by forest companies operating on the local market¹⁵. The authors have demonstrated that depending on the three fire severity scenarios the cost can range from 790 €/ha up to 1,482 €/ha.

For some fuel management activities, scientific studies evaluating costs of interventions are available. An example is the work by Xanthopoulos (2002)¹⁶ which developed a multiple regression equation for the estimation of the required work labour (expressed in man-days) for shrub cutting, tree pruning and removal of shrub biomass. The resulting equation, which is reported here in the following, includes shrub biomass (t/ha), biomass carrying distance (m) and slope (%) as the independent variables.

$$\text{WORK} = 36.56485 + 0,359878 \cdot \text{BIOMASS} + 0,000523 \cdot \text{BIOMASS} \cdot \text{SLOPE} \cdot \text{DISTANCE} \\ (6,39170) \quad (0,744313) \quad (0,000291)^{17}$$

Where

WORK: Required manual labour (8-hour work-days/ha) for brush cutting, tree pruning and removal of biomass, including rest.

¹⁴potentially removed from forest stands in WUIs

¹⁵Lafortezza, R.; Tanentzap, A.J.; Elia, M.; John, R.; Sanesi, G.; Chen, J. Prioritizing fuel management in urban interfaces threatened by wildfires. *Ecol. Indic.* 2015, 48, 342–347.

¹⁶Xanthopoulos, G. 2002. Shrub removal cost estimation for fire hazard reduction in Mediterranean forest conditions. In: Viegas, Domingos Xavier, ed. 4th Int. Conf. on Forest Fire Research: proceedings; 2002 November 18-23; Luso-Coimbra, Portugal. Millpress Science Publishers, Rotterdam, The Netherlands: Book of Abstracts, p. 33. Full paper on CD accompanying the book of abstracts.

¹⁷The numbers in parentheses are the standard errors of the coefficients.

BIOMASS: Shrub biomass expressed in t/ha

SLOPE: Site slope (%)

DISTANCE: Average distance at which biomass is moved (m)

$N = 8$, $R^2 = 0,628$ Adjusted $R^2 = 0,479$

P-Value for the equation = 0,084522

Standard error of the estimate (SEE) = 11,152901

Coefficient of Variation about Regression = $11,15290/48,07500 = 0,232$

The variables and the form of the equation have been selected in such a way that they will provide acceptably accurate predictions for a quite wide range and combinations of shrub biomass, slope and slash carrying distance. It is worth to say that such equations have a limited range of application. It should only be used for first-time fuel treatment in *Pinus halepensis* forests with shrub understory, where tree pruning will comprise a significant part of the work. It is not appropriate for maintenance treatment to remove shrub regrowth. Furthermore, it is not expected to apply properly for very low shrub biomass and very high fuel loads which were not included in the data set anyway, for extremely steep slopes (e.g. where workers have difficulty standing and/or moving) and for very long slash carrying distances (e.g. > 100 m). Even with these limitations, shrub removal is a common fuel management practice for fire hazard reduction, especially in the extensive wildland-urban interface areas of the Mediterranean countries of Europe and therefore evaluation of its cost through several methods and sources is very important when programming fuel management for fire risk reduction.

6.2 Price lists

In the field of active prevention against forest fires, various forest operations can be carried out. In many cases they consist in the reduction of the fuel load (e.g. thinning) or of the spatial continuity of fuels (e.g. firebreaks). These activities, being rather common in the Mediterranean Countries, have been codified within the regional price lists of forest activities. In this regard, the results of a screening of the most common active prevention activities included in the price lists of the Italian regions are reported in Annex 8.6. The prices are obviously very variable depending on the magnitude of the intervention and the geographical context. Therefore, the minimum and maximum reference values have been reported (with a detailed description of the type of activity), so as to provide the range of costs for each intervention. These prices can be used for a comparison of the order of magnitude of costs for active prevention activities and fire suppression activities in the Task 2.2 of WP2.

7 Conclusions

The analysis exercise developed in this study highlights a particularly interesting picture of public expenditure fire prevention.

We have highlighted how several funding programs at European level can help to support fire prevention. The most important are three out of the five programs within European Structural and Investments Funds(ESIF): the European Regional Development Fund (ERDF), the Cohesion Fund (CF) and the European Agricultural Fund for Rural Development (EARDF). Besides these structural funds, specific pilot projects can be funded by specific programs including LIFE or INTERREG. Among all of these funding schemes, the most relevant is EARDF since its financial support corresponds to about 74% of the total EU programmed expenditure related to the thematic objective 5 “Climate Change Adaptation, risk prevention and management”. Furthermore, both private and public owners can apply for this fund and therefore RDPs can potentially support structured and widespread projects and not only pilot activities.

The efficiency of the use of RDP resources can be quantified by the rate realisation of programmed expenditure. In the case of RDP 2007-2013, this rate is rather high in the case of Italy, Portugal and Spain, where around 80% of the programmed expenditure in the measure 226 has been realised. On the other hand, Greece has spent just 15% of the programmed budget.

Although there is no way to devise from expenditure data the actual intensity of investments on the ground, the value of the measure 226 expenditure per hectare of forest¹⁸ allows to figure out some differences across countries. Our findings show that the unitary volume of expenditure in Spain and Italy is between 32 and 36 €/per hectare, while in Portugal and Greece is just 12 € and 1.7 €, respectively.

A rate of realization lower than 100% has been also found in many regions across project Countries for most of the measures linked to forest activities having a direct and indirect effect on fire risk reduction. This partial expenditure has brought to a reduction of fund allocation in the subsequent RDP program for measures devoted to support the forest sector. For instance, Italy has programmed for the RDP 2014-2020 a total expenditure for measure 8.3 reduced by 30%¹⁹ if compared to programmed expenditure for measure 226 (RDP 2007-2013). If we consider 8.3 and 8.4 together, in any case the programmed funds decreased from the 539 mln of euros of the measure 226 (RDP 2007-2013) to 501 mln of euros.

¹⁸Total surface of forests according to CLC2006

¹⁹Source Italian ministry for agriculture, updated at 2018.

The in-depth analysis conducted on expenditure data available at a disaggregated spatial level (Municipality), allowed a more accurate assessment of the expenditure spatial structure. The findings from the analysis show that the 226 measure was financed (and presumably implemented) in an extremely fragmented way across the examined territories.

On one side, this fragmentation may be influenced by the local context, as the statistical analyses presented here have suggested. A common feature is a seemingly de-coupling of expenditure intensity per unit of potential forest area from the degree of rurality. In fact, in all Countries the expenditure intensity per unit of (potential) forest area correlates positively with the percentage of agricultural areas and negatively with the percentage of forest areas in municipalities investigated.

On the other side, however, this fragmentation may reflect an unclear design in the allocation of the measures themselves and, thus, difficulties in the use of RDP funding for fire prevention in rural areas. Knowledge gained from stakeholders involved in PREVAIL Workshop#1 (see Deliverable 2.1) suggests as possible areas of improvement to reduce the fragmentation of funding to make a clear link between the spatial allocation of RDP measures and territorial areas most exposed to the forest fire hazard in the geographical area covered by each single RDP (see maps in Figure 11-14).

In this direction, there is a need to rethink the criteria for the territorial allocation of direct and indirect fire prevention measures under the RDP, so that territories most exposed to the forest fire hazard, are to receive greater concentration of resources.

To achieve this goal, specific plans of fire prevention, including private and public lands, are mandatory, in order to spatially optimise the amount of resources that need to be invested to reduce the vulnerability and exposure to wildfire in hazard zones (e.g. firebreaks, water points, fuel management in strategic points, shrub removal, thinnings). At the same time fire prevention planning should go hand-in-hand with a proper allocation of funding under the RDP 8.3 sub-measure to interventions devoted to fire prevention, so to ensure that funding to these specific fire prevention plans is given proper priority in the RDP calls.

Another possibility is to open multi-measures calls for integrated territorial projects finalized to fire prevention. These integrated projects can consider both active prevention (e.g. fuel management, firebreaks) and indirect measures with positive effect on fire prevention (e.g. active forest management and forest products mobilization, mosaic landscape maintenance, grasslands and complementary grazing in the forest understory).

In that perspective, greater capacity of political dialogue and coordination between public Administrations will be needed, in order to establish synergies between public Institutions, in

charge of the wildfire prevention planning, and RDP Management Authorities. Otherwise, the potential to enhance the effectiveness of RDP funding for implementing concrete fire prevention actions in rural territories will remain untapped, to some extent.

8. Annexes

8.1 Data at National level (RDP 2007-2013)

Measure	Greece			Italy			Portugal			Spain		
	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	% on target
	Total Public	Total Public		Total Public	Total Public		Total Public	Total Public		Total Public	Total Public	
Axis 1												
M111 - Vocational training and information actions	0	0	-	113305	179303	63%	20,491	27,415	75%	62,308	80,945	77%
M112 - Setting up of young farmers	271,920	234,343	>100%	616,709	705,377	87%	257,891	221,816	>100%	473,561	584,311	81%
M113 - Early retirement	242	300	81%	59065	66806	88%	34,817	53,701	65%	447,921	456,371	98%
M114 - Use of advisory services	1,915	3,000	64%	50,531	88,949	57%	1,209	5,719	21%	59,128	72,229	82%
M115 - Setting up of management, relief and advisory services	0	0	-	3957	8110	49%	18,303	29,069	63%	19,842	27,721	72%
M121 - Modernisation of agricultural holdings	291,005	425,281	68%	2,656,458	3,240,479	82%	630,427	543,013	>100%	1,300,733	1,461,878	89%
M122 - Improvement of the economic value of forests	0	0	-	98901	143449	69%	67,357	78,909	85%	44,311	58,909	75%
M123 - Adding value to agricultural and forestry products	62,013	214,160	29%	957,187	1,257,795	76%	369,243	522,420	71%	1,221,426	1,541,706	79%
M124 - Cooperation for development of new products, processes and technologies in agriculture, the food sector and in forestry	0	0	-	108831	204917	53%	10,408	18,200	57%	25,229	35,948	70%
M125 - Infrastructure related to the development and adaptation of agriculture and forestry	339,476	544,565	62%	621,025	788,685	79%	475,652	586,006	81%	1,158,319	1,565,274	74%
M126 - Restoring agricultural production potential	0	8,002	-	53963	156,364	35%	58,453	78,158	75%	583	1,567	37%
M131 - Meeting standards based on EU legislation	7,164	7,000	102%	15,480	17,194	90%	413	3,397	12%	644	755	85%
M132 - Participation of farmers in food quality schemes	1,622	7,502	22%	22,177	48,793	45%	13,786	15,858	87%	46,890	52,000	90%
M133 - Information and promotion activities	10	100	10%	80974	129996	62%	2,019	3,786	53%	43,531	51,071	85%
M141 - Semi-subsistence farming	0	0	-	0	0	-	0	0	-	0	0	-
M142 - Producer groups	0	0	-	0	0	-	0	0	-	0	0	-
M143 - Providing farm advisory and extension services	0	0	-	0	0	-	0	0	-	0	0	-
M144 - Holdings undergoing restructuring due to a reform of a common market organisation	187,366	190,012	99%	23,530	25,110	94%				13,314	13,935	96%
Axis 2												
M211 - Natural handicap payments to farmers in mountain areas	729,988	705,483	>100%	1,163,434	1,156,161	>100%	679,629	686,332	99%	498,280	503,924	99%
M212 - Payments to farmers in areas with handicaps, other than mountain areas	308,038	269,201	>100%	361,018	341,590	>100%	181,105	179,444	>100%	464,696	481,005	97%

M213 - Natura 2000 payments and payments linked to Dir. 2000/60/EC	0	8,000	0%	22858	34,335	67%	0	0	-	5,543	5,681	98%
M214 - Agri-environment payments	911,701	1,267,283	72%	3,645,485	3,770,753	97%	614,575	626,723	98%	2,295,810	2,441,369	94%
M215 - Animal welfare payments	0	0	-	395375	419582	94%	0	0	-	53,867	74,065	73%
M216 - Non-productive investments	1,069	4,500	24%	237,121	283,561	84%	41,561	16,994	>100%	21,494	25,571	84%
M221 - First afforestation of agricultural land	100,900	108,003	93%	428,238	494,393	87%	319,238	298,007	>100%	592,136	636,382	93%
M222 - First establishment of agroforestry systems on agricultural land	0	0	-	10	1300	1%	121	6,651	2%	0	0	-
M223 - First afforestation of non-agricultural land	0	0	-	12344	25562	48%	16,160	25,556	63%	66,752	95,393	70%
M224 - Natura 2000 payments	0	10,000	0%	52	1,278	4%	436	384	>100%	0	0	-
M225 - Forest-environment payments	0	0	-	20223	36795	55%	4,332	18,665	23%	26,069	27,806	94%
M226 - Restoring forestry potential and introducing prevention actions	12,545	87,041	14%	419,882	539,229	78%	58,714	79,618	74%	763,749	938,217	81%
M227 - Non-productive investments	0	2,999	0%	178836	257,055	70%	93,072	72,884	>100%	266,107	390,158	68%
Axis 3												
M311 - Diversification into non-agricultural activities	4,137	18,471	22%	455,453	668,718	68%	0	0	-	11,972	14,508	83%
M312 - Support for business creation and development	4,411	9,383	47%	30,826	74,934	41%	0	0	-	31,016	37,590	83%
M313 - Encouragement of tourism activities	30,663	104,311	29%	70,597	130,006	54%	0	0	-	17,460	38,994	45%
M321 - Basic services for the economy and rural population	45,734	188,971	24%	261,073	349,339	75%	32,498	44,671	73%	125,596	164,919	76%
M322 - Village renewal and development	33,082	46,067	72%	108,997	187,475	58%	0	0	-	81,151	95,619	85%
M323 - Conservation and upgrading of the rural heritage	2,485	5,006	50%	100,633	157,173	64%	8,396	20,499	41%	90,936	113,070	80%
M331 - Training and information	0	0	-	13013	24728	53%	0	0	-	190	447	43%
M341 - Skills acquisition and animation measure with a view to preparing and implementing a local development strategy	0	0	-	2688	5499	49%	0	0	-	185	185	100%
Axis 4												
M411 - Competitiveness	8,668	18,524	47%	60,276	120,901	50%	0	0	-	61,116	122,824	50%
M412 - Environment/land management	0	0	-	16453	41339	40%	0	0	-	4,068	14,035	29%
M413 - Quality of life/diversification	30,710	144,800	21%	403,113	847,190	48%	294,839	362,811	81%	524,466	908,571	58%
M421 - Implementing cooperation projects	237	2,000	12%	7182	72,402	10%	9,809	13,143	75%	8,305	20,812	40%
M431 - Running the LAG, skills acquisition, animation	36,880	41,300	89%	146,456	194,577	75%	67,528	89,926	75%	172,841	215,466	80%
Axis 5												
M511 - Technical assistance	14,570	60,000	24%	239,546	355,128	67%	58,850	104,128	57%	139,080	174,412	80%
Total	3,438,550	4,735,610	73%	14,283,275	17,652,332	81%	4,441,330	4,833,903	92%	11,240,627	13,545,644	83%

8.2 Data at sub-national level (RDP 2007-2013): the decentralized administrations of Greece

Measure	Decentralized Administrations	percentage of overall programmed budget approved for Measure 2.2.6.	Total amount based on approved project proposals	Total amount of actually implemented and paid projects
2.2.6.	Makedonias - Thrakis	35%	19,105,684.62	8,702,855.90
2.2.6.	Thessalias - Stereas Elladas	16%	8,520,940.84	6,148,124.61
2.2.6.	Epirus - Macedonia West	10%	5,194,360.72	3,763,546.25
2.2.6.	Attiki	8%	4,150,184.77	3,606,580.21
2.2.6.	Peloponnese, Greece Western and the Ionian	5%	2938934.97	2511658.83
2.2.6.	Kritis	2%	1,163,819.15	941987.2
2.2.6.	Aigaiou	1%	798,800.51	241,399.64
Totals		77%	41,872,725.58	25,916,152.64

1	2	3	4	5
Measure	Decentralized Administrations	Percentage of realisation of approved project budget	Total amount based on approved project proposals	Total amount of actually implemented and paid projects
2.2.6.	Attiki	87%	4,150,184.77	3,606,580.21
2.2.6.	Peloponnese, Western Greece and the Ionian	85%	2938934.97	2511658.83
2.2.6.	Kritis	81%	1,163,819.15	941987.2
2.2.6.	Epirus - West Macedonia	72%	5,194,360.72	3,763,546.25
2.2.6.	Thessalias-Stereas Elladas	72%	8,520,940.84	6,148,124.61
2.2.6.	Makedonias- Thrakis	46%	19,105,684.62	8,702,855.90
2.2.6.	Aigaiou	30%	798,800.51	241,399.64
Totals		62%	41,872,725.58	25,916,152.64

8.3 Data at Regional level (RDP 2007-2013)

8.3.1 Italy

Measure	Abruzzo			Basilicata			Bolzano province			Calabria		
	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target
	Total Public	Total Public		Total Public	Total Public		Total Public	Total Public		Total Public		
Axis 1												
M111 - Vocational training and information actions	2,541	3,000	85%	1,121	1,884	60%	864	1,398	62%	3,753	9,325	40%
M112 - Setting up of young farmers	28,015	41,698	67%	24,090	23,882	>100%	9,874	9,888	100 %	29,049	32,786	89%
M113 - Earlyretirement	1,628	1,588	>100%	45	45	100%	0	0	-	400	1,662	24%
M114 - Use of advisory services	428	846	51%	0	2,514	0%	0	0	-	44	4,667	1%
M115 - Setting up of management, relief and advisory services	0	0	-	0	0	-	342	400	85%	1,923	5,379	36%
M121 - Modernisation of agricultural holdings	85,387	93,119	92%	47,350	81,226	58%	13,672	14,730	93%	118,099	174,440	68%
M122 - Improvement of the economic value of forests	166	1,384	12%	467	1,977	24%	4,126	4,095	>10 0%	6,482	12,134	53%
M123 - Adding value to agricultural and forestry products	31,537	34,389	92%	21,725	35,695	61%	31,894	35,105	91%	50,940	87,333	58%
M124 - Cooperation for development of new products, processes and technologies in agriculture, the food sector and in forestry	2,992	9,000	33%	3,360	7,461	45%	544	559	97%	2,680	5,423	49%
M125 - Infrastructure related to the development and adaptation of agriculture and forestry	0	0	-	55,423	46,331	>100%	7,898	12,124	65%	61,931	77,442	80%
M126 - Restoring agricultural production potential	2,912	12,984	22%	501	3,711	14%	0	0	-	0	3,683	0%
M131 - Meeting standards based on EU legislation	0	0	-	0	0	-	0	0	-	0	0	-
M132 - Participation of farmers in food quality schemes	6	48	12%	0	473	0%	0	20	0%	46	2,414	2%
M133 - Information and promotion activities	6,134	7,152	86%	192	3,310	6%	380	749	51%	3,317	12,494	27%
M141 - Semi-subsistencefarming	0	0	-	0	0	-	0	0	-	0	0	-
M142 - Producer groups	0	0	-	0	0	-	0	0	-	0	0	-
M143 - Providing farm advisory and extension services	0	0	-	0	0	-	0	0	-	0	0	-

M144 - Holdings undergoing restructuring due to a reform of a common market organisation	390	500	78%	0	0	-	0	0	-	0	0	-
Axis 2												
M211 - Natural handicap payments to farmers in mountain areas	44,782	43,478	>100%	14,394	30,743	47%	62,345	62,351	100%	48,304	38,631	>100%
M212 - Payments to farmers in areas with handicaps, other than mountain areas	5,936	6,018	99%	151	255	59%	0	0	-	44,140	44,201	100%
M213 - Natura 2000 payments and payments linked to Dir. 2000/60/EC	0	0	-	0	0	-	0	0	-	0	0	-
M214 - Agri-environmentpayments	68,562	73,614	93%	165,964	190,829	87%	141,763	142,345	100%	277,792	250,301	>100%
M215 - Animal welfare payments	0	0	-	0	0	-	0	0	-	12,279	12,000	>100%
M216 - Non-productiveinvestments	0	1,910	0%	203	2,749	7%	0	0	-	2,067	3,833	54%
M221 - First afforestation of agricultural land	8,685	15,576	56%	13,169	19,548	67%	0	0	-	22,840	36,077	63%
M222 - First establishment of agroforestry systems on agricultural land	0	0	-	0	0	-	0	0	-	0	0	-
M223 - First afforestation of non-agricultural land	0	81	0%	104	675	15%	0	0	-	2,249	5,917	38%
M224 - Natura 2000 payments	0	0	-	0	0	-	0	0	-	0	0	-
M225 - Forest-environmentpayments	0	0	-	0	0	-	0	0	-	0	0	-
M226 - Restoring forestry potential and introducing prevention actions	794	2,802	28%	79,636	70,994	>100%	3,899	2,592	>100%	28,678	33,750	85%
M227 - Non-productiveinvestments	102	4,203	2%	1,478	2,825	52%	248	371	67%	24,054	28,875	83%
Axis 3												
M311 - Diversification into non-agricultural activities	3,864	14,396	27%	15,565	37,652	41%	6,211	6,785	92%	36,031	58,198	62%
M312 - Support for business creation and development	150	510	29%	443	2,627	17%	0	0	-	665	3,485	19%
M313 - Encouragement of tourism activities	1,001	8,225	12%	1,020	4,023	25%	1,961	2,550	77%	4,328	5,659	76%
M321 - Basic services for the economy and rural population	15,641	14,051	>100%	15,284	14,035	>100%	15,023	17,137	88%	30,633	40,737	75%
M322 - Village renewal and development	278	2,101	13%	0	0	-	0	0	-	0	0	-
M323 - Conservation and upgrading of the rural heritage	1,348	3,834	35%	9,915	8,007	>100%	1,153	1,276	90%	6,728	11,650	58%
M331 - Training and information	0	0	-	0	3,987	0%	0	0	-	824	1,864	44%
M341 - Skills acquisition and animation measure with a view to preparing and implementing a local development	0	0	-	0	0	-	0	0	-	0	0	-

strategy												
Axis 4												
M411 – Competitiveness	430	2,879	15%	2,854	5,851	49%	526	585	90%	2,987	9,650	31%
M412 - Environment/land management	57	3,839	1%	1,496	2,916	51%	0	0	-	1,006	2,300	44%
M413 - Quality of life/diversification	275	7,678	4%	5,148	20,397	25%	8,006	12,781	63%	18,446	38,900	47%
M421 - Implementingcooperationprojects	189	3,232	6%	87	1,944	4%	0	349	0%	646	3,857	17%
M431 - Running the LAG, skills acquisition, animation	3,192	3,839	83%	4,148	7,777	53%	1,723	2,000	86%	6,545	7,628	86%
Axis 5												
M511 - Technical assistance	4,760	8,356	57%	10,760	19,659	55%	0	0	-	17,798	20,815	86%
Total	322,181	426,328	76%	496,091	656,001	76%	312,449	330,192	95 %	867,703	1,087,509	80%

Measure	Campania			Emilia Romagna			Friuli Venezia Giulia			Lazio		
	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013¹ (EUR '000)	% on target
	Total Public	Total Public		Total Public	Total Public		Total Public	Total Public		Total Public		
Axis 1												
M111 - Vocational training and information actions	4,286	15,776	27%	12,621	14,098	90 %	0	0	-	1,765	5,541	32%
M112 - Setting up of young farmers	27,154	28,691	95%	55,232	63,133	87 %	7,902	7,806	>10 0%	38,844	56,959	68%
M113 - Earlyretirement	9,296	11,301	82%	39	49	79 %	0	0	-	9,204	7,969	>10 0%
M114 - Use of advisory services	483	1,449	33%	6,165	7,837	79 %	0	0	-	861	2,404	36%
M115 - Setting up of management, relief and advisory services	1,477	2,011	73%	0	0	-	0	0	-	27	133	21%
M121 - Modernisation of agricultural holdings	258,478	325,441	79%	192,176	238,966	80 %	74,982	86,183	87%	123,666	147,365	84%
M122 - Improvement of the economic value of forests	1,009	1,297	78%	5,150	6,241	83 %	6,251	8,335	75%	0	0	-
M123 - Adding value to agricultural and forestry products	45,599	67,890	67%	92,693	130,188	71 %	15,348	10,976	>10 0%	52,987	76,903	69%
M124 - Cooperation for development of new products, processes and technologies in agriculture, the food sector and in forestry	13,553	23,014	59%	10,550	12,246	86 %	301	440	68%	1,991	8,055	25%
M125 - Infrastructure related to the development and adaptation of agriculture and forestry	122,865	176,922	69%	3,343	11,377	29 %	6,019	8,010	75%	26,079	23,002	>10 0%
M126 - Restoring agricultural production potential	860	1,497	57%	23,730	63,957	37 %	0	0	-	705	1,426	49%
M131 - Meeting standards based on EU legislation	28	31	91%	0	0	-	0	0	-	0	0	-
M132 - Participation of farmers in food quality schemes	7	13	53%	4,238	4,497	94 %	569	1,576	36%	80	776	10%
M133 - Information and promotion activities	849	1,397	61%	5,388	6,214	87 %	518	1,687	31%	1,669	3,749	45%
M141 - Semi-subsistencefarming	0	0	-	0	0	-	0	0	-	0	0	-
M142 - Producer groups	0	0	-	0	0	-	0	0	-	0	0	-
M143 - Providing farm advisory and extension services	0	0	-	0	0	-	0	0	-	0	0	-
M144 - Holdings undergoing restructuring due to a reform of a common market	17,375	18,095	96%	0	0	-	0	0	-	629	850	-

organisation												
Axis 2												
M211 - Natural handicap payments to farmers in mountain areas	228,868	225,739	>100%	59,639	59,805	100%	39,060	37,868	>100%	21,271	19,646	>100%
M212 - Payments to farmers in areas with handicaps, other than mountain areas	20,023	20,461	98%	9,666	9,729	99%	0	0	-	1,851	1,940	95%
M213 - Natura 2000 payments and payments linked to Dir. 2000/60/EC	0	0	-	0	0	-	135	1,248	11%	0	812	0%
M214 - Agri-environmentpayments	214,221	258,460	83%	297,582	298,707	100%	25,996	31,003	84%	179,574	164,491	>100%
M215 - Animal welfare payments	17,957	23,662	76%	8,291	11,811	70%	0	0	-	7,287	9,678	75%
M216 - Non-productiveinvestments	27,071	29,706	91%	3,137	4,801	65%	754	2,657	28%	723	4,344	17%
M221 - First afforestation of agricultural land	27,317	34,618	79%	21,915	22,020	100%	13,035	16,760	78%	11,193	15,178	74%
M222 - First establishment of agroforestry systems on agricultural land	0	0	-	0	0	-	0	0	-	0	0	-
M223 - First afforestation of non-agricultural land	1,835	3,012	61%	0	0	-	1,498	1,796	83%	0	50	0%
M224 - Natura 2000 payments	0	0	-	0	0	-	0	0	-	52	798	7%
M225 - Forest-environmentpayments	18,240	24,357	75%	0	0	-	11	12	94%	0	0	-
M226 - Restoring forestry potential and introducing prevention actions	87,168	105,329	83%	4,574	7,140	64%	1,216	1,980	61%	1,110	4,141	27%
M227 - Non-productiveinvestments	32,127	35,023	92%	10,631	10,769	99%	943	1,450	65%	2,708	5,978	45%
Axis 3												
M311 - Diversification into non-agricultural activities	33,210	43,408	77%	31,916	46,481	69%	7,657	11,735	65%	18,941	32,176	59%
M312 - Support for business creation and development	22,081	23,566	94%	0	0	-	1,701	1,996	85%	178	2,568	7%
M313 - Encouragement of tourism activities	19,530	27,458	71%	2,792	3,215	87%	401	401	100%	4,922	12,887	38%
M321 - Basic services for the economy and rural population	39,772	49,217	81%	25,505	38,556	66%	2,384	6,085	39%	13,216	12,246	>100%
M322 - Village renewal and development	43,500	87,474	50%	12,928	15,165	85%	0	0	-	5,397	10,916	49%
M323 - Conservation and upgrading of the rural heritage	29,318	34,501	85%	2,489	3,864	64%	1,092	1,936	56%	2,902	8,340	35%
M331 - Training and information	860	3,430	25%	3,291	3,659	90%	0	0	-	226	1,856	12%

M341 – Skills acquisition and animation measure with a view to preparing and implementing a local development strategy	0	0	-	1,327	1,431	93 %	675	700	96%	0	1,960	0%
Axis 4												
M411 – Competitiveness	2,412	12,598	19%	6,050	10,136	60 %	654	1,665	39%	6,761	10,940	62%
M412 - Environment/land management	2,031	8,788	23%	1,497	3,827	39 %	289	747	39%	0	0	-
M413 - Quality of life/diversification	15,206	45,244	34%	12,902	26,938	48 %	3,207	9,752	33%	17,223	21,100	82%
M421 - Implementingcooperationprojects	0	5,850	0%	9	3,291	0%	52	795	7%	0	883	0%
M431 - Running the LAG, skills acquisition, animation	10,849	13,334	81%	6,048	7,342	82 %	2,130	3,110	68%	5,509	6,402	86%
Axis 5												
M511 - Technical assistance	12,121	21,957	55%	7,614	10,593	72 %	4,046	6,975	58%	8,311	15,973	52%
Total	1,409,034	1,812,017	78%	941,128	1,158,083	81 %	218,827	265,683	82 %	567,861	700,435	81 %

Measure	Liguria			Lombardia			Marche			Molise		
	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target
	Total Public	Total Public		Total Public	Total Public		Total Public	Total Public		Total Public	Total Public	
Axis 1												
M111 - Vocational training and information actions	1,139	2,900	39%	5,836	8,535	68%	3,705	7,391	50%	153	1,500	10%
M112 - Setting up of young farmers	9,230	14,508	64%	25,893	26,094	99%	6,829	8,287	82%	4,445	6,000	74%
M113 - Earlyretirement	772	686	>100%	33	33	100%	351	352	100%	9,160	8,422	>100%
M114 - Use of advisory services	306	871	35%	14	14	100%	164	453	36%	0	2,000	0%
M115 - Setting up of management, relief and advisory services	0	0	-	188	188	100%	0	0	-	0	0	-
M121 - Modernisation of agricultural holdings	86,868	92,210	94%	200,744	216,018	93%	95,035	110,860	86%	20,874	26,227	80%
M122 - Improvement of the economic value of forests	4,407	7,700	57%	8,333	8,627	97%	1,591	2,280	70%	100	893	11%
M123 - Adding value to agricultural and forestry products	11,408	11,466	100%	49,308	61,248	81%	14,528	22,080	66%	6,973	17,925	39%
M124 - Cooperation for development of new products, processes and technologies in agriculture, the food sector and in forestry	339	1,286	26%	3,431	5,312	65%	488	3,140	16%	674	1,500	45%
M125 - Infrastructure related to the development and adaptation of agriculture and forestry	11,208	13,547	83%	52,432	68,493	77%	18,664	13,220	>100%	18,588	13,417	>100%
M126 - Restoring agricultural production potential	2,319	2,007	>100%	13	13	100%	3,447	7,000	49%	0	2,000	0%
M131 - Meeting standards based on EU legislation	0	0	-	0	0	-	0	0	-	0	0	-
M132 - Participation of farmers in food quality schemes	204	529	39%	2,036	2,202	92%	12	1,400	1%	0	1,318	0%
M133 - Information and promotion activities	128	407	32%	2,187	2,187	100%	6,478	15,480	42%	89	1,500	6%
M141 - Semi-subsistencefarming	0	0	-	0	0	-	0	0	-	0	0	-
M142 - Producer groups	0	0	-	0	0	-	0	0	-	0	0	-
M143 - Providing farm advisory and extension services	0	0	-	0	0	-	0	0	-	0	0	-
M144 - Holdings undergoing restructuring due to a reform of a common market organisation	0	0	-	0	0	-	0	0	-	0	0	-

Axis 2												
M211 - Natural handicap payments to farmers in mountain areas	22,590	20,265	>100%	74,069	71,132	>100%	42,471	41,476	>100%	29,580	27,450	>100%
M212 - Payments to farmers in areas with handicaps, other than mountain areas	85	191	45%	0	0	-	3,885	4,420	88%	3,638	3,500	>100%
M213 - Natura 2000 payments and payments linked to Dir. 2000/60/EC	0	0	-	0	0	-	860	1,550	55%	0	0	-
M214 - Agri-environmentpayments	27,835	31,425	89%	260,887	274,359	95%	96,172	103,680	93%	20,140	23,834	85%
M215 - Animal welfare payments	730	1,477	49%	0	0	-	3,216	3,600	89%	0	0	-
M216 - Non-productiveinvestments	15,711	12,693	>100%	18,287	22,142	83%	1,380	3,046	45%	26	1,000	3%
M221 - First afforestation of agricultural land	67	341	20%	76,795	73,080	>100%	18,421	20,550	90%	11,497	12,442	92%
M222 - First establishment of agroforestry systems on agricultural land	0	0	-	0	0	-	0	1,270	0%	0	0	-
M223 - First afforestation of non-agricultural land	0	0	-	352	617	57%	0	0	-	469	1,000	47%
M224 - Natura 2000 payments	0	0	-	0	0	-	0	480	0%	0	0	-
M225 - Forest-environmentpayments	0	0	-	0	0	-	0	0	-	0	0	-
M226 - Restoring forestry potential and introducing prevention actions	3,440	4,103	84%	21,279	25,256	84%	11,124	15,950	70%	10,425	7,000	>100%
M227 - Non-productiveinvestments	3,218	2,872	>100%	0	0	-	1,066	3,590	30%	605	1,500	40%
Axis 3												
M311 - Diversification into non-agricultural activities	9,657	10,722	90%	47,189	56,857	83%	23,870	37,642	63%	2,405	7,273	33%
M312 - Support for business creation and development	436	853	51%	2,466	2,398	>100%	0	0	-	32	2,273	1%
M313 - Encouragement of tourism activities	241	241	100%	4,436	5,898	75%	371	1,875	20%	0	0	-
M321 - Basic services for the economy and rural population	3,276	4,644	71%	10,467	13,452	78%	5,783	7,155	81%	11,228	12,258	92%
M322 - Village renewal and development	46	46	100%	0	0	-	0	0	-	2,944	4,500	65%
M323 - Conservation and upgrading of the rural heritage	0	739	0%	19,789	22,883	86%	1,619	4,110	39%	2,448	3,802	64%
M331 - Training and information	207	455	46%	1,093	1,609	68%	0	0	-	0	0	-
M341 – Skills acquisition and animation measure with a view to preparing and implementing a local development strategy	0	0	-	0	0	-	0	0	-	0	0	-
Axis 4												
M411 – Competitiveness	8,471	13,482	63%	4,877	8,215	59%	0	0	-	0	0	-

M412 - Environment/land management	3,465	7,111	49%	2,127	2,692	79%	0	0	-	1,775	2,617	68%
M413 - Quality of life/diversification	14,083	18,635	76%	21,162	28,812	73%	9,085	20,836	44%	2,373	4,836	49%
M421 - Implementingcooperationprojects	800	4,540	18%	609	1,471	41%	90	2,035	4%	294	1,256	23%
M431 - Running the LAG, skills acquisition, animation	850	1,615	53%	5,270	5,300	99%	4,551	5,718	80%	1,160	1,490	78%
Axis 5												
M511 - Technical assistance	2,563	4,836	53%	9,730	11,433	85%	7,031	11,356	62%	4,379	5,849	75%
Total	246,099	289,403	85%	931,332	1,026,569	91%	382,285	482,283	79%	166,475	206,582	81%

Measure	Piedmont			Puglia			Sardinia			Sicily		
	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013¹ (EUR '000)	% on target
	Total Public	Total Public		Total Public	Total Public		Total Public	Total Public		Total Public	Total Public	
Axis 1												
M111 - Vocational training and information actions	36,200	41,295	88%	8,876	15,078	59%	0	3,512	0%	4,262	14,203	30%
M112 - Setting up of young farmers	41,125	52,795	78%	61,259	62,500	98%	51,100	52,500	97%	72,714	73,080	99%
M113 - Earlyretirement	5,870	6,486	90%	7,941	12,000	66%	290	290	100%	4,846	5,326	91%
M114 - Use of advisory services	7,010	11,973	59%	2,268	9,515	24%	0	5,300	0%	280	3,000	9%
M115 - Setting up of management, relief and advisory services	0	0	-	0	0	-	0	0	-	0	0	-
M121 - Modernisation of agricultural holdings	130,826	140,543	93%	297,689	336,404	88%	53,780	91,966	58%	329,832	463,399	71%
M122 - Improvement of the economic value of forests	4,427	5,223	85%	5,348	9,141	59%	7,962	21,600	37%	791	2,741	29%
M123 - Adding value to agricultural and forestry products	57,062	76,492	75%	126,245	139,586	90%	17,707	28,433	62%	109,596	163,987	67%
M124 - Cooperation for development of new products, processes and technologies in agriculture, the food sector and in forestry	4,745	11,844	40%	16,262	29,526	55%	2,623	8,474	31%	29,289	35,149	83%
M125 - Infrastructure related to the development and adaptation of agriculture and forestry	11,439	26,068	44%	29,098	26,157	>100%	55,928	93,111	60%	66,662	74,604	89%
M126 - Restoring agricultural production potential	0	0	-	0	0	-	1,799	30,000	-	7,759	10,000	78%
M131 - Meeting standards based on EU legislation	0	0	-	0	0	-	294	1,235	24%	0	0	-
M132 - Participation of farmers in food quality schemes	8,234	11,177	74%	5	1,789	0%	1,525	1,900	80%	1,971	6,271	31%
M133 - Information and promotion activities	18,760	21,777	86%	1,416	5,825	24%	452	2,679	17%	7,166	10,098	71%
M141 - Semi-subsistencefarming	0	0	-	0	0	-	0	0	-	0	0	-
M142 - Producer groups	0	0	-	0	0	-	0	0	-	0	0	-
M143 - Providing farm advisory and extension services	0	0	-	0	0	-	0	0	-	0	0	-
M144 - Holdings undergoing restructuring due to a reform of a common market organisation	0	0	-	0	0	-	0	0	-	0	0	-

Axis 2											
M211 - Natural handicap payments to farmers in mountain areas	45,665	53,545	85%	6,291	7,214	87%	76,741	69,461	>100%	95,230	96,500 99%
M212 - Payments to farmers in areas with handicaps, other than mountain areas	0	0	-	11,980	12,603	95%	224,522	201,024	>100%	16,291	16,957 96%
M213 - Natura 2000 payments and payments linked to Dir. 2000/60/EC	0	0	-	6,210	7,026	88%	0	0	-	15,654	14,332 >100%
M214 - Agri-environmentpayments	269,501	283,776	95%	292,423	318,267	92%	137,053	146,721	93%	569,376	536,092 >100%
M215 - Animal welfare payments	15,906	23,409	68%	0	0	-	298,465	299,894	100%	0	0 -
M216 - Non-productiveinvestments	325	1,570	-	113,919	118,631	96%	0	0	-	35,511	56,058 63%
M221 - First afforestation of agricultural land	20,103	25,709	78%	9,033	23,550	38%	33,958	33,290	>100%	68,374	68,086 100%
M222 - First establishment of agroforestry systems on agricultural land	0	0	-	0	0	-	0	0	-	0	0 -
M223 - First afforestation of non-agricultural land	0	0	-	187	1,400	13%	0	0	-	4,505	9,099 50%
M224 - Natura 2000 payments	0	0	-	0	0	-	0	0	-	0	0 -
M225 - Forest-environmentpayments	0	7,841	-	0	0	-	403	1,038	39%	0	0 -
M226 - Restoring forestry potential and introducing prevention actions	2,258	5,159	44%	23,420	38,470	61%	1,599	18,462	9%	58,448	86,784 67%
M227 - Non-productiveinvestments	1,470	7,955	18%	33,147	54,147	61%	0	0	-	25,811	43,546 59%
Axis 3											
M311 - Diversification into non-agricultural activities	11,252	15,136	74%	22,358	31,300	71%	4,249	10,000	42%	100,337	129,382 78%
M312 - Support for business creation and development	9	9	100%	0	0	-	0	0	-	2,177	30,448 7%
M313 - Encouragement of tourism activities	12,261	15,909	77%	545	1,000	54%	0	0	-	2,984	10,500 28%
M321 - Basic services for the economy and rural population	4,332	8,375	52%	9,468	14,064	67%	15,053	13,637	>100%	14,726	37,308 39%
M322 - Village renewal and development	26,094	36,951	71%	0	0	-	0	0	-	9,659	16,700 58%
M323 - Conservation and upgrading of the rural heritage	3,292	5,201	63%	98	7,000	1%	0	1,360	0%	1,865	7,332 25%
M331 - Training and information	0	0	-	3,433	700	>100%	0	0	-	2,503	6,170 41%
M341 – Skills acquisition and animation measure with a view to preparing and implementing a local development strategy	172	172	100%	0	0	-	0	125	0%	342	342 100%
Axis 4											
M411 – Competitiveness	6,591	11,800	56%	0	0	-	0	0	-	0	0 -

M412 - Environment/land management	1,814	4,040	45%	0	0	-	0	0	-	0	0	-
M413 - Quality of life/diversification	13,019	29,133	45%	122,781	201,795	61%	18,038	115,183	16%	34,744	89,007	39%
M421 - Implementingcooperationprojects	2	346	-	958	12,000	8%	945	2,206	43%	0	13,509	0%
M431 - Running the LAG, skills acquisition, animation	4,904	7,450	66%	42,037	54,000	78%	10,813	20,000	54%	12,084	17,605	69%
Axis 5												
M511 - Technical assistance	22,581	24,927	91%	31,151	44,398	70%	6,012	11,344	53%	11,356	24,770	46%
Total	787,249	974,088	81%	1,285,843	1,595,086	81%	1,021,312	1,284,747	79%	1,717,144	2,172,386	79%

Measure	Tuscany			Trento province			Umbria			Valle d'Aosta		
	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target
	Total Public	Total Public		Total Public	Total Public		Total Public	Total Public		Total Public		
Axis 1												
M111 - Vocational training and information actions	1,800	4,600	39%	2,702	3,549	76%	9,615	11,651	83%	0	0	-
M112 - Setting up of young farmers	56,141	66,500	84%	4,933	5,179	95%	10,157	21,947	46%	3,641	5,235	70%
M113 - Earlyretirement	6,058	7,160	85%	0	0	-	0	0	-	818	1,122	73%
M114 - Use of advisory services	21,340	21,900	97%	0	0	-	0	418	0%	61	150	41%
M115 - Setting up of management, relief and advisory services	0	0	-	0	0	-	0	0	-	0	0	-
M121 - Modernisation of agricultural holdings	153,063	173,819	88%	30,821	36,445	85%	103,762	111,473	93%	0	2,215	0%
M122 - Improvement of the economic value of forests	15,710	16,700	94%	2,012	3,000	67%	8,968	13,206	68%	0	0	-
M123 - Adding value to agricultural and forestry products	43,195	56,300	77%	15,408	19,118	81%	73,570	78,257	94%	1,372	2,223	62%
M124 - Cooperation for development of new products, processes and technologies in agriculture, the food sector and in forestry	5,079	10,000	51%	0	0	-	4,729	20,124	24%	0	0	-
M125 - Infrastructure related to the development and adaptation of agriculture and forestry	13,646	23,200	59%	32,218	40,686	79%	10,757	17,972	60%	0	0	-
M126 - Restoring agricultural production potential	0	0	-	0	0	-	9,916	18,085	55%	0	0	-
M131 - Meeting standards based on EU legislation	0	0	-	0	0	-	4,126	4,701	88%	0	0	-
M132 - Participation of farmers in food quality schemes	929	2,300	40%	0	0	-	828	3,401	24%	251	325	77%
M133 - Information and promotion activities	1,734	2,600	67%	0	0	-	5,039	8,711	58%	1,198	1,798	67%
M141 - Semi-subsistencefarming	0	0	-	0	0	-	0	0	-	0	0	-
M142 - Producer groups	0	0	-	0	0	-	0	0	-	0	0	-
M143 - Providing farm advisory and extension services	0	0	-	0	0	-	0	0	-	0	0	-
M144 - Holdings undergoing restructuring due to a reform of a common market organisation	856	1,000	86%	0	0	-	3,296	3,573	92%	0	0	-

Axis 2											
M211 - Natural handicap payments to farmers in mountain areas	5,596	6,500	86%	60,944	61,092	100%	33,941	37,635	90%	51,103	49,710 >100%
M212 - Payments to farmers in areas with handicaps, other than mountain areas	5,379	4,900	>10 0%	0	0	-	13,471	15,391	88%	0	0 -
M213 - Natura 2000 payments and payments linked to Dir. 2000/60/EC	0	0	-	0	0	-	0	0	-	0	331 0%
M214 - Agri-environmentpayments	177,171	207,076	86%	53,634	53,922	99%	196,041	207,695	94%	25,672	25,988 99%
M215 - Animal welfare payments	4,232	5,000	85%	0	0	-	4,611	5,641	82%	7,147	6,955 >100%
M216 - Non-productiveinvestments	138	600	23%	0	0	-	601	3,040	20%	580	2,760 21%
M221 - First afforestation of agricultural land	31,373	33,200	94%	0	0	-	23,093	27,334	84%	0	0 -
M222 - First establishment of agroforestry systems on agricultural land	0	0	-	0	0	-	0	0	-	0	0 -
M223 - First afforestation of non-agricultural land	91	500	18%	0	0	-	84	315	27%	0	0 -
M224 - Natura 2000 payments	0	0	-	0	0	-	0	0	-	0	0 -
M225 - Forest-environmentpayments	434	2,200	20%	0	0	-	852	1,048	81%	0	0 -
M226 - Restoring forestry potential and introducing prevention actions	50,910	69,000	74%	3,070	4,045	76%	17,700	24,271	73%	0	0 -
M227 - Non-productiveinvestments	12,414	20,000	62%	1,542	2,000	77%	19,577	23,202	84%	0	0 -
Axis 3											
M311 - Diversification into non-agricultural activities	38,840	50,900	76%	3,085	4,557	68%	15,149	29,486	51%	3,116	6,132 51%
M312 - Support for business creation and development	0	0	-	0	0	-	452	4,000	11%	0	0 -
M313 - Encouragement of tourism activities	0	0	-	1,682	3,000	56%	9,922	18,951	52%	1,476	5,113 29%
M321 - Basic services for the economy and rural population	3,344	6,688	50%	5,654	6,633	85%	8,107	11,769	69%	0	0 -
M322 - Village renewal and development	0	0	-	0	0	-	4,480	9,873	45%	3,670	3,749 98%
M323 - Conservation and upgrading of the rural heritage	0	0	-	13,105	17,250	76%	0	5,320	0%	0	0 -
M331 - Training and information	0	0	-	0	0	-	0	0	-	0	0 -
M341 - Skills acquisition and animation measure with a view to preparing and implementing a local development strategy	0	0	-	0	0	-	0	0	-	0	0 -
Axis 4											
M411 - Competitiveness	4,702	5,035	93%	750	1,583	47%	5,495	18,022	30%	0	0 -

M412 - Environment/land management	0	0	-	0	0	-	0	0	-	0	0	-
M413 - Quality of life/diversification	45,592	54,541	84%	5,663	13,160	43%	4,098	13,781	30%	531	6,489	8%
M421 - Implementingcooperationprojects	0	2,366	0%	41	251	16%	733	1,927	38%	0	493	0%
M431 - Running the LAG, skills acquisition, animation	7,339	8,195	90%	1,814	2,149	84%	4,715	6,811	69%	487	1,114	44%
Axis 5												
M511 - Technical assistance	2,473	7,748	32%	777	1,144	68%	2,180	7,873	28%	867	1,764	49%
Total	709,579	870,527	82 %	239,855	278,765	86%	610,064	786,904	78%	101,990	123,666	82%

Veneto			
Measure	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target
	Total Public	Total Public	
Axis 1			
M111 - Vocational training and information actions	12,066	14,068	86%
M112 - Setting up of young farmers	49,082	45,909	>100%
M113 - Earlyretirement	2,315	2,315	100%
M114 - Use of advisory services	11,107	13,636	81%
M115 - Setting up of management, relief and advisory services	0	0	-
M121 - Modernisation of agricultural holdings	239,354	277,430	86%
M122 - Improvement of the economic value of forests	15,599	16,875	92%
M123 - Adding value to agricultural and forestry products	88,094	102,203	86%
M124 - Cooperation for development of new products, processes and technologies in agriculture, the food sector and in forestry	5,201	12,364	42%
M125 - Infrastructure related to the development and adaptation of agriculture and forestry	16,828	23,000	73%
M126 - Restoring agricultural production potential	0	0	-
M131 - Meeting standards based on EU legislation	11,032	11,227	98%
M132 - Participation of farmers in food quality schemes	1,237	6,364	19%
M133 - Information and promotion activities	17,880	20,182	89%
M141 - Semi-subsistencefarming	0	0	-
M142 - Producer groups	0	0	-
M143 - Providing farm advisory and extension services	0	0	-
M144 - Holdings undergoing restructuring due to a reform of a common market organisation	984	1,093	90%
Axis 2			
M211 - Natural handicap payments to farmers in mountain areas	100,548	95,917	>100%
M212 - Payments to farmers in areas with handicaps, other than mountain areas	0	0	-
M213 - Natura 2000 payments and payments linked to Dir. 2000/60/EC	0	9,036	0%

M214 - Agri-environmentpayments	148,128	148,169	>100%
M215 - Animal welfare payments	15,254	16,455	93%
M216 - Non-productiveinvestments	16,689	12,018	>100%
M221 - First afforestation of agricultural land	17,371	17,036	>100%
M222 - First establishment of agroforestry systems on agricultural land	10	30	33%
M223 - First afforestation of non-agricultural land	971	1,100	88%
M224 - Natura 2000 payments	0	0	-
M225 - Forest-environmentpayments	282	300	94%
M226 - Restoring forestry potential and introducing prevention actions	9,135	12,000	76%
M227 - Non-productiveinvestments	7,694	8,750	88%
Axis 3			
M311 - Diversification into non-agricultural activities	20,550	28,500	72%
M312 - Support for business creation and development	36	200	18%
M313 - Encouragement of tourism activities	724	3,100	23%
M321 - Basic services for the economy and rural population	12,178	21,291	57%
M322 - Village renewal and development	0	0	-
M323 - Conservation and upgrading of the rural heritage	3,474	8,767	40%
M331 - Training and information	575	1,000	58%
M341 – Skills acquisition and animation measure with a view to preparing and implementing a local development strategy	172	770	22%
Axis 4			
M411 – Competitiveness	6,718	8,461	79%
M412 - Environment/land management	898	2,461	36%
M413 - Quality of life/diversification	31,531	68,191	46%
M421 - Implementingcooperationprojects	1,728	9,800	18%
M431 - Running the LAG, skills acquisition, animation	10,290	11,700	88%
Axis 5			
M511 - Technical assistance	7,099	10,440	68%
Total	882,835	1,042,159	85%

8.3.2 Portugal

Measure	Azores			Madeira			Mainland		
	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 ¹ (EUR '000)	% on target
	Total Public	Total Public		Total Public	Total Public		Total Public	Total Public	
Axis 1									
M111 - Vocational training and information actions	0	0	-	553	500	>100%	19,938	26,915	74%
M112 - Setting up of young farmers	6,593	7,367	89%	1,342	2,000	67%	249,956	212,449	>100%
M113 - Early retirement	11,634	15,294	76%	45	52	87%	23,137	38,356	60%
M114 - Use of advisory services	0	1	0%	0	125	0%	1,209	5,593	22%
M115 - Setting up of management, relief and advisory services	431	858	50%	58	150	38%	17,814	28,061	63%
M121 - Modernisation of agricultural holdings	49,672	55,119	90%	8,793	10,935	80%	571,962	476,958	>100%
M122 - Improvement of the economic value of forests	4,534	5,524	82%	1,452	1,500	97%	61,371	71,885	85%
M123 - Adding value to agricultural and forestry products	52,413	57,241	92%	7,221	5,301	>100%	309,609	459,878	67%
M124 - Cooperation for development of new products, processes and technologies in agriculture, the food sector and in forestry	0	0	-	0	100	0%	10,408	18,100	58%
M125 - Infrastructure related to the development and adaptation of agriculture and forestry	25,346	29,348	86%	37,369	45,500	82%	412,936	511,157	81%
M126 - Restoring agricultural production potential	0	0	-	33,048	47,000	70%	25,404	31,158	82%
M131 - Meeting standards based on EU legislation	0	0	-	0	15	0%	413	3,382	12%
M132 - Participation of farmers in food quality schemes	0	0	-	22	100	22%	13,763	15,758	87%
M133 - Information and promotion activities	0	0	-	0	350	0%	2,019	3,436	59%
M141 - Semi-subsistence farming	0	0	-	0	0	-	0	0	-
M142 - Producer groups	0	0	-	0	0	-	0	0	-
M143 - Providing farm advisory and extension services	0	0	-	0	0	-	0	0	-
Axis 2									
M211 - Natural handicap payments to farmers in mountain areas	0	0	-	19,946	20,000	100%	659,683	666,332	99%
M212 - Payments to farmers in areas with handicaps, other than mountain areas	72,304	72,600	100%	341	250	>100%	108,460	106,594	>100%

M213 - Natura 2000 payments and payments linked to Dir. 2000/60/EC	0	0	-	0	0	-	0	0	-
M214 - Agri-environment payments	58,810	59,027	100%	5,884	6,500	91%	549,881	561,195	98%
M215 - Animal welfare payments	0	0	-	0	0	-	0	0	-
M216 - Non-productive investments	0	0	-	223	1,000	22%	41,337	15,994	>100%
M221 - First afforestation of agricultural land	7,528	7,849	96%	1,905	2,000	95%	309,806	288,158	>100%
M222 - First establishment of agroforestry systems on agricultural land	0	6	0%	0	0	-	121	6,645	2%
M223 - First afforestation of non-agricultural land	5	6	94%	2,290	5,000	46%	13,866	20,551	67%
M224 - Natura 2000 payments	244	264	92%	191	120	>100%	0	0	-
M225 - Forest-environment payments	376	380	99%	0	0	-	3,956	18,285	22%
M226 - Restoring forestry potential and introducing prevention actions	0	0	-	14,270	17,500	82%	44,444	62,118	72%
M227 - Non-productive investments	553	747	74%	2,954	3,480	85%	89,565	68,657	>100%
Axis 3									
M311 - Diversification into non-agricultural activities	0	0	-	0	0	-	0	0	-
M312 - Support for business creation and development	0	0	-	0	0	-	0	0	-
M313 - Encouragement of tourism activities	0	0	-	0	0	-	0	0	-
M321 - Basic services for the economy and rural population	0	3,102	0%	0	0	-	32,498	41,569	78%
M322 - Village renewal and development	0	0	-	0	0	-	0	0	-
M323 - Conservation and upgrading of the rural heritage	1,434	2,163	66%	6,197	12,321	50%	764	6,015	13%
M331 - Training and information	0	0	-	0	0	-	0	0	-
M341 – Skills acquisition and animation measure with a view to preparing and implementing a local development strategy	0	0	-	0	0	-	0	0	-
Axis 4									
M411 – Competitiveness	0	0	-	0	0	-	0	0	-
M412 - Environment/land management	0	0	-	0	0	-	0	0	-
M413 - Quality of life/diversification	10,221	21,234	48%	6,540	7,679	85%	278,078	333,898	83%
M421 - Implementing cooperation projects	154	941	16%	0	300	0%	9,656	11,902	81%
M431 - Running the LAG, skills acquisition, animation	3,360	4,717	71%	787	1,632	48%	63,382	83,577	76%
Axis 5									
M511 - Technical assistance	1,061	1,325	80%	3,290	3,630	91%	43,647	87,444	50%
Total	306675	345114	0.89	154,721	195,040	79%	3,969,083	4,282,019	93%

8.3.3 Spain

Measure	Andalucia			Aragon			Asturias			Balears		
	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target ²	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target ²	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target ²	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target ²
	Total Public	Total Public		Total Public	Total Public		Total Public	Total Public		Total Public	Total Public	
Axis 1												
M111 - Vocational training and information actions	20,745	29,749	69.7%	5,670	6,421	88%	-	-	-	373	640	58%
M112 - Setting up of young farmers	45,473	63,255	71.9%	53,122	50,486	>100 %	14,996	14,750	>100 %	8,019	9,868	81%
M113 - Early retirement	10,940	13,003	84.1%	12,634	13,651	93%	102,848	102,855	100 %	0	0	-
M114 - Use of advisory services	6,183	8,259	74.9%	500	800	63%	-	-	-	106	285	37%
M115 - Setting up of management, relief and advisory services	3,436	5,778	59.5%	596	1,038	57%	-	-	-	248	304	82%
M121 - Modernisation of agricultural holdings	109,456	126,595	86.5%	105,066	115,758	91%	36,369	37,685	97%	27,025	33,422	81%
M122 - Improvement of the economic value of forests	2,456	4,069	60.4%	-	-	-	5,862	7,980	74%	0	0	-
M123 - Adding value to agricultural and forestry products	141,456	203,234	69.6%	134,642	146,369	92%	31,124	32,000	97%	18,882	26,356	72%
M124 - Cooperation for development of new products, processes and technologies in agriculture, the food sector and in forestry	132	326	40.4%	217	389	56%	-	-	-	164	165	100%
M125 - Infrastructure related to the development and adaptation of agriculture and forestry	269,107	484,355	55.6%	141,366	160,594	88%	23,347	23,350	100 %	530	700	76%
M126 - Restoring agricultural production potential	339	1,324	25.6%	243	243	100 %	-	-	-	0	0	-
M131 - Meeting standards based on EU legislation			-	-	-	-	-	-	-	0	0	-
M132 - Participation of farmers in food quality schemes	24,698	28,544	86.5%	1,836	1,836	100 %	-	-	-	103	103	100%
M133 - Information and promotion activities	10,457	12,566	83.2%	4,354	4,423	98%	-	-	-	1,070	1,695	63%
M141 - Semi-subsistence farming			-	-	-	-	-	-	-	0	0	-
M142 - Producer groups			-	-	-	-	-	-	-	0	0	-

M143 - Providing farm advisory and extension services	-	-	-	-	-	-	-	-	-	0	0	-
M144 - Holdings undergoing restructuring due to a reform of a common market organisation	1,523	1,697	89.80%	-	-	-	-	-	-	-	-	-
Axis 2												
M211 - Natural handicap payments to farmers in mountain areas	74,757	65,413	>100%	40,172	45,294	89%	61,080	61,087	100%	966	1,120	86%
M212 - Payments to farmers in areas with handicaps, other than mountain areas	35,899	27,976	>100%	30,827	31,476	98%	391	391	100%	3,263	3,880	84%
M213 - Natura 2000 payments and payments linked to Dir. 2000/60/EC	-	-	-	-	-	-	4,799	4,800	100%	0	0	-
M214 - Agri-environmentpayments	657,746	655,498	100%	144,830	167,376	87%	46,386	46,406	100%	19,321	22,576	86%
M215 - Animal welfare payments	2,292	1,562	>100%	-	-	-	-	-	-	0	0	-
M216 - Non-productiveinvestments	4,436	4,795	92.5%	-	-	-	-	-	-	3,359	5,154	65%
M221 - First afforestation of agricultural land	125,874	149,147	84.4%	25,737	27,213	95%	-	-	-	881	979	90%
M222 - First establishment of agroforestry systems on agricultural land	-	-	-	-	-	-	-	-	-	0	0	-
M223 - First afforestation of non-agricultural land	4,267	7,275	58.7%	1,629	1,667	98%	11,734	13,400	88%	0	0	-
M224 - Natura 2000 payments	-	-	-	-	-	-	-	-	-	0	0	-
M225 - Forest-environmentpayments	-	-	-	-	-	-	-	-	-	0	0	-
M226 - Restoring forestry potential and introducing prevention actions	310,278	403,075	77.0%	52,776	59,606	89%	31,700	31,700	100%	5,250	5,250	100%
M227 - Non-productiveinvestments	49,337	97,111	50.8%	15,865	17,403	91%	3,550	3,550	100%	2,104	2,099	100%
Axis 3												
M311 - Diversification into non-agricultural activities	-	-	-	-	-	-	-	-	-	0	0	-
M312 - Support for business creation and development	458	1,887	24.3%	-	-	-	-	-	-	0	0	-
M313 - Encouragement of tourism activities	4,117	10,535	39.1%	1,760	1,800	98%	-	-	-	0	0	-
M321 - Basic services for the economy and rural population	1,718	3,007	57.1%	7,993	18,234	-	-	-	-	0	0	-
M322 - Village renewal and development	2,388	4,271	55.9%	62,984	73,686	85%	-	-	-	0	0	-
M323 - Conservation and upgrading of the rural heritage	7,971	10,683	74.6%	11,781	11,885	99%	-	-	-	0	0	-

M331 - Training and information	190	447	42.6%	-	-	-	-	-	-	0	0	-
M341 – Skills acquisition and animation measure with a view to preparing and implementing a local development strategy			-	-	-	-	-	-	-	0	0	-
Axis 4												
M411 – Competitiveness	24,085	70,340	34.2%	6,372	6,674	95%	198	200	99%	0	0	-
M412 - Environment/land management	897	6,558	13.7%	-	-	-	-	-	-	0	0	-
M413 - Quality of life/diversification	84,357	165,904	50.8%	64,651	72,212	90%	28,781	43,000	67%	5,886	10,344	57%
M421 - Implementingcooperationprojects		3,000	0.0%	3,277	4,422	74%	-	400	0%	0	0	-
M431 - Running the LAG, skills acquisition, animation	49,432	64,450	76.7%	14,025	16,652	84%	4,828	4,850	100%	1,468	1,988	74%
Axis 5												
M511 - Technical assistance	19,149	34,083	56.2%	1,437	1,856	77%	-	-	-	1,416	1,593	89%
Total	2,106,052	2,769,770	76.0%	946,363	1,059,463	89%	407,993	428,404	95%	100,434	128,519	78%

Measure	Basque country			Canaryislands			Cantabria			Castile and Leon		
	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target²	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target²	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target²	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target²
	Total Public	Total Public		Total Public	Total Public		Total Public	Total Public		Total Public		
Axis 1												
M111 - Vocational training and information actions	2,891	4,861	59%	625	809	77%	814	892	91%	0	0	-
M112 - Setting up of young farmers	5,736	9,741	59%	5,832	6,317	92%	9,348	13,075	71%	62,297	78,528	79%
M113 - Earlyretirement	3,750	3,881	97%	0	0	-	23,229	23,412	99%	112,786	106,959	>100%
M114 - Use of advisory services	208	269	77%	0	17	0%	2,180	2,361	92%	9,336	10,919	86%
M115 - Setting up of management, relief and advisory services	483	538	90%	0	2	0%	86	86	100 %	1,031	1,876	55%
M121 - Modernisation of agricultural holdings	31,645	41,655	76%	60,738	68,131	89%	14,070	15,265	92%	198,279	199,796	99%
M122 - Improvement of the economic value of forests	10,439	12,940	81%	0	0	-	544	544	100 %	0	0	-
M123 - Adding value to agricultural and forestry products	31,803	35,946	88%	34,997	36,915	95%	5,855	7,008	84%	142,306	178,776	80%
M124 - Cooperation for development of new products, processes and technologies in agriculture, the food sector and in forestry	734	727	>100%	0	0	-	0	0	-	6,788	11,199	61%
M125 - Infrastructure related to the development and adaptation of agriculture and forestry	11,560	11,967	97%	27,418	29,498	93%	1,469	2,969	49%	180,091	294,850	61%
M126 - Restoring agricultural production potential	0	0	-	0	0	-	0	0	-	0	0	-
M131 - Meeting standards based on EU legislation	0	0	-	0	0	-	0	0	-	0	0	-
M132 - Participation of farmers in food quality schemes	3,217	3,218	100%	583	723	81%	0	0	-	0	0	-
M133 - Information and promotion activities	1,998	1,998	100%	1,883	2,293	82%	0	0	-	0	0	-
M141 - Semi-subsistencefarming	0	0	-	0	0	-	0	0	-	0	0	-
M142 - Producer groups	0	0	-	0	0	-	0	0	-	0	0	-
M143 - Providing farm advisory and extension services	0	0	-	0	0	-	0	0	-	0	0	-

M144 - Holdings undergoing restructuring due to a reform of a common market organisation	-	-	-	-	-	-	-	-	-	160	231	69%
Axis 2												
M211 - Natural handicap payments to farmers in mountain areas	23,052	24,026	96%	350	835	42%	27,884	27,889	100%	68,010	72,107	94%
M212 - Payments to farmers in areas with handicaps, other than mountain areas	595	855	70%	207	671	31%	0	0	-	186,150	187,090	99%
M213 - Natura 2000 payments and payments linked to Dir. 2000/60/EC	0	0	-	0	0	-	0	0	-	0	0	-
M214 - Agri-environmentpayments	17,480	17,656	99%	20,482	24,387	84%	32,925	33,236	99%	240,505	240,088	100%
M215 - Animal welfare payments	0	0	-	0	0	-	0	0	-	22,060	34,950	63%
M216 - Non-productiveinvestments	0	0	-	0	0	-	0	0	-	0	0	-
M221 - First afforestation of agricultural land	46	49	96%	0	0	-	250	282	89%	143,044	135,313	>100%
M222 - First establishment of agroforestry systems on agricultural land	0	0	-	0	0	-	0	0	-	0	0	-
M223 - First afforestation of non-agricultural land	0	0	-	0	0	-	0	0	-	0	0	-
M224 - Natura 2000 payments	0	0	-	0	0	-	0	0	-	0	0	-
M225 - Forest-environmentpayments	38	76	50%	0	0	-	0	0	-	26,031	27,729	94%
M226 - Restoring forestry potential and introducing prevention actions	4,038	6,016	67%	10,675	12,053	89%	8,608	10,678	81%	29,984	29,667	>100%
M227 - Non-productiveinvestments	960	1,502	64%	10,699	14,004	76%	202	202	100%	10,365	16,309	64%
Axis 3												
M311 - Diversification into non-agricultural activities	673	926	73%	0	0	-	0	0	-	0	0	-
M312 - Support for business creation and development	0	0	-	0	0	-	85	100	85%	0	0	-
M313 - Encouragement of tourism activities	733	1,183	62%	765	2,360	32%	0	0	-	0	0	-
M321 - Basic services for the economy and rural population	6,786	7,808	87%	1,741	2,083	84%	88	88	100%	18,357	30,181	61%
M322 - Village renewal and development	1,896	2,312	82%	5,269	6,637	79%	2,303	2,572	90%	0	0	-
M323 - Conservation and upgrading of the rural heritage	1,180	1,180	100%	9,381	14,008	67%	52	52	100%	0	0	-
M331 - Training and information	0	0	-	0	0	-	0	0	-	0	0	-

M341 – Skills acquisition and animation measure with a view to preparing and implementing a local development strategy	0	0	-	0	0	-	0	0	-	0	0	-
Axis 4												
M411 – Competitiveness	422	600	70%	1,380	3,434	40%	1,054	2,002	53%	415	1,984	21%
M412 - Environment/land management	0	0	-	0	0	-	0	0	-	0	0	-
M413 - Quality of life/diversification	16,061	21,376	75%	5,434	9,253	59%	8,660	13,356	65%	62,154	127,358	49%
M421 - Implementing cooperation projects	0	0	-	75	547	14%	0	121	0%	1,612	4,869	33%
M431 - Running the LAG, skills acquisition, animation	921	982	94%	1,145	2,647	43%	2,640	2,972	89%	20,557	25,862	79%
Axis 5												
M511 - Technical assistance	496	623	80%	3,917	4,670	84%	569	578	98%	3,992	6,610	60%
Total	179,842	214,908	84%	203,595	242,292	84%	142,915	159,738	89%	1,546,310	1,823,251	85%

Castilla la Mancha				Catalonia			Extremadura			Galicia		
Measure	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target ²	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target ²	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target ²	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target ²
	Total Public	Total Public		Total Public	Total Public		Total Public	Total Public		Total Public		
Axis 1												
M111 - Vocational training and information actions	5,857	6,678	88%	4,710	6,555	72%	2,062	2,951	70%	12,123	13,886	87%
M112 - Setting up of young farmers	57,884	73,485	79%	52,447	57,669	91%	37,626	52,305	72%	50,702	70,354	72%
M113 - Earlyretirement	36,162	37,758	96%	8,076	8,165	99%	51,472	56,737	91%	48,992	50,214	98%
M114 - Use of advisory services	3,706	6,999	53%	5,491	5,721	96%	12,710	15,610	81%	10,264	9,283	>100%
M115 - Setting up of management, relief and advisory services	571	1,869	31%	3,417	3,427	100%	609	890	68%	8,302	10,130	82%
M121 - Modernisation of agricultural holdings	134,348	160,958	83%	150,681	155,444	97%	30,950	52,284	59%	194,658	227,621	86%
M122 - Improvement of the economic value of forests	0	0	-	0	0	-	3,155	5,050	62%	20,943	27,342	77%
M123 - Adding value to agricultural and forestry products	190,524	273,143	70%	94,195	101,442	93%	102,395	140,758	73%	93,386	116,999	80%
M124 - Cooperation for development of new products, processes and technologies in agriculture, the food sector and in forestry	14	653	-	5,153	5,552	93%	0	0	-	10,808	14,534	74%
M125 - Infrastructure related to the development and adaptation of agriculture and forestry	48,594	54,765	89%	141,633	135,650	>100%	102,980	132,409	78%	37,370	59,845	62%
M126 - Restoring agricultural production potential	0	0	-	0	0	-	0	0	-	0	0	-
M131 - Meeting standards based on EU legislation	0	0	-	2	2	100%	537	537	100%	104	216	48%
M132 - Participation of farmers in food quality schemes	8,331	8,797	95%	2,097	2,187	96%	1,696	1,689	100%	4,328	4,903	88%
M133 - Information and promotion activities	4,844	6,977	69%	5,732	5,253	>100%	839	1,030	81%	12,353	14,838	83%
M141 - Semi-subsistencefarming	0	0	-	0	0	-	0	0	-	0	0	-
M142 - Producer groups	0	0	-	0	0	-	0	0	-	0	0	-
M143 - Providing farm advisory and extension services	0	0	-	0	0	-	0	0	-	0	0	-

M144 - Holdings undergoing restructuring due to a reform of a common market organisation	-	-	-	-	-	-	11,631	12,007	97%	-	-	-
Axis 2												
M211 - Natural handicap payments to farmers in mountain areas	32,235	33,094	97%	53,323	52,473	>100%	14,250	15,924	89%	59,435	58,854	>100%
M212 - Payments to farmers in areas with handicaps, other than mountain areas	74,535	97,331	77%	11,777	11,778	100%	72,120	73,221	98%	35,689	32,464	>100%
M213 - Natura 2000 payments and payments linked to Dir. 2000/60/EC	0	0	-	0	0	-	0	0	-	0	0	-
M214 - Agri-environmentpayments	390,421	423,447	92%	155,926	176,135	89%	191,669	211,907	90%	110,792	126,603	88%
M215 - Animal welfare payments	0	0	-	26,113	33,698	77%	3,331	3,767	88%	71	88	81%
M216 - Non-productiveinvestments	0	0	-	381	387	98%	5,287	4,854	>100%	6,562	8,766	75%
M221 - First afforestation of agricultural land	153,443	160,272	96%	881	1,048	84%	111,912	126,964	88%	5,938	5,949	100%
M222 - First establishment of agroforestry systems on agricultural land	0	0	-	0	0	-	0	0	-	0	0	-
M223 - First afforestation of non-agricultural land	0	0	-	0	0	-	0	0	-	45,270	69,937	65%
M224 - Natura 2000 payments	0	0	-	0	0	-	0	0	-	0	0	-
M225 - Forest-environmentpayments	0	0	-	0	0	-	0	0	-	0	0	-
M226 - Restoring forestry potential and introducing prevention actions	49,792	85,875	58%	31,849	34,026	94%	38,867	37,939	>100%	133,320	160,931	83%
M227 - Non-productiveinvestments	40,050	66,008	61%	45,364	53,576	85%	38,027	54,550	70%	3,952	9,342	42%
Axis 3												
M311 - Diversification into non-agricultural activities	0	0	-	8,853	11,126	80%	0	0	-	504	505	100%
M312 - Support for business creation and development	0	0	-	0	0	-	0	0	-	28,928	34,051	85%
M313 - Encouragement of tourism activities	0	4,211	0%	1	1	100%	979	1,180	83%	4,076	10,337	39%
M321 - Basic services for the economy and rural population	1,452	14,482	10%	7,240	7,241	100%	47	47	100%	77,325	76,443	>100%
M322 - Village renewal and development	0	0	-	0	0	-	1,686	1,923	88%	0	0	-
M323 - Conservation and upgrading of the rural heritage	3,665	5,675	65%	0	0	-	18,054	18,818	96%	15,800	26,109	61%
M331 - Training and information	0	0	-	0	0	-	0	0	-	0	0	-

M341 – Skills acquisition and animation measure with a view to preparing and implementing a local development strategy	0	0	-	0	0	-	0	0	-	0	0	-
Axis 4												
M411 – Competitiveness	0	0	-	9,860	11,410	86%	3,926	10,608	37%	10,765	7,150	>100%
M412 - Environment/land management	0	0	-	0	0	-	0	0	-	1,394	4,819	29%
M413 - Quality of life/diversification	78,864	123,648	64%	29,264	47,198	62%	45,128	82,475	55%	43,911	86,668	51%
M421 - Implementingcooperationprojects	241	3,495	7%	1,907	1,776	>100%	588	801	73%	0	0	-
M431 - Running the LAG, skills acquisition, animation	23,866	30,062	79%	10,985	12,076	91%	16,936	18,030	94%	14,585	20,554	71%
Axis 5												
M511 - Technical assistance	2,351	3,268	72%	1,254	1,155	>100%	1,841	6,380	29%	6,454	9,658	67%
Total	1,341,752	1,682,950	80%	868,615	942,169	92%	923,311	1,143,648	81%	1,109,105	1,369,392	81%

Measure	La Rioja			Madrid			Murcia			Navarra		
	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target ²	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target ²	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target ²	Realised from 2007 to 2014 (EUR '000)	Programmed for 2007 to 2013 (EUR '000)	Total Public: % on target ²
	Total Public	Total Public		Total Public	Total Public		Total Public	Total Public		Total Public	Total Public	
Axis 1												
M111 - Vocational training and information actions	2,064	2,236	92%	100	161	62%	2,815	3,607	78%	0	0	-
M112 - Setting up of young farmers	11,736	12,226	96%	2,505	3,426	73%	9,600	10,719	90%	13,289	17,557	76%
M113 - Earlyretirement	4,945	5,063	98%	791	868	91%	0	0	-	8,782	9,838	89%
M114 - Use of advisory services	5,258	7,267	72%	60	221	27%	2,797	3,268	86%	0	0	-
M115 - Setting up of management, relief and advisory services	123	169	72%	30	189	16%	718	749	96%	0	0	-
M121 - Modernisation of agricultural holdings	32,399	31,324	>100%	10,608	13,380	79%	18,267	27,430	67%	90,381	94,004	96%
M122 - Improvement of the economic value of forests	54	52	>100%	0	0	-	0	0	-	859	931	92%
M123 - Adding value to agricultural and forestry products	8,002	13,467	59%	12,178	16,507	74%	38,940	52,468	74%	38,200	40,380	95%
M124 - Cooperation for development of new products, processes and technologies in agriculture, the food sector and in forestry	1,219	1,754	69%	0	650	-	0	0	-	0	0	-
M125 - Infrastructure related to the development and adaptation of agriculture and forestry	40,353	36,313	>100%	7,518	7,740	97%	70,237	75,730	93%	54,745	52,096	>100%
M126 - Restoring agricultural production potential	0	0	-	0	0	-	0	0	-	0	0	-
M131 - Meeting standards based on EU legislation	0	0	-	0	0	-	0	0	-	0	0	-
M132 - Participation of farmers in food quality schemes	0	0	-	0	0	-	0	0	-	0	0	-
M133 - Information and promotion activities	0	0	-	0	0	-	0	0	-	0	0	-
M141 - Semi-subsistencefarming	0	0	-	0	0	-	0	0	-	0	0	-
M142 - Producer groups	0	0	-	0	0	-	0	0	-	0	0	-
M143 - Providing farm advisory and extension services	0	0	-	0	0	-	0	0	-	0	0	-

M144 - Holdings undergoing restructuring due to a reform of a common market organisation	-	-	-	-	-	-	-	-	-	-	-	-
Axis 2												
M211 - Natural handicap payments to farmers in mountain areas	8,184	7,157	>100%	2,491	3,107	80%	2,518	2,524	100%	22,502	25,031	90%
M212 - Payments to farmers in areas with handicaps, other than mountain areas	0	0	-	0	0	-	3,769	3,765	100%	5,529	6,237	89%
M213 - Natura 2000 payments and payments linked to Dir. 2000/60/EC	0	0	-	0	0	-	0	0	-	744	881	84%
M214 - Agri-environmentpayments	20,930	22,188	94%	6,774	9,600	71%	94,015	110,336	85%	18,695	19,003	98%
M215 - Animal welfare payments	0	0	-	0	0	-	0	0	-	0	0	-
M216 - Non-productiveinvestments	737	875	84%	0	0	-	732	741	99%	0	0	-
M221 - First afforestation of agricultural land	2,707	2,430	>100%	4,034	7,425	54%	7,659	9,046	85%	6,212	6,466	96%
M222 - First establishment of agroforestry systems on agricultural land	0	0	-	0	0	-	0	0	-	0	0	-
M223 - First afforestation of non-agricultural land	3,362	2,624	>100%	489	490	100%	0	0	-	0	0	-
M224 - Natura 2000 payments	0	0	-	0	0	-	0	0	-	0	0	-
M225 - Forest-environmentpayments	0	0	-	0	0	-	0	0	-	0	0	-
M226 - Restoring forestry potential and introducing prevention actions	13,225	11,566	>100%	3,709	10,927	34%	28,033	19,946	>100%	2,559	3,268	78%
M227 - Non-productiveinvestments	14,302	17,344	82%	8,638	10,800	80%	1,405	2,930	48%	14,993	16,050	93%
Axis 3												
M311 - Diversification into non-agricultural activities	0	0	-	0	0	-	0	0	-	1,941	1,951	99%
M312 - Support for business creation and development	0	0	-	0	0	-	0	0	-	1,545	1,552	100%
M313 - Encouragement of tourism activities	2,639	2,430	>100%	2,390	4,958	48%	0	0	-	0	0	-
M321 - Basic services for the economy and rural population	0	0	-	2,851	5,306	54%	0	0	-	0	0	-
M322 - Village renewal and development	4,540	4,131	>100%	84	87	97%	0	0	-	0	0	-
M323 - Conservation and upgrading of the rural heritage	4,085	4,510	91%	13,775	14,130	97%	0	0	-	5,192	6,020	86%
M331 - Training and information	0	0	-	0	0	-	0	0	-	0	0	-

M341 – Skills acquisition and animation measure with a view to preparing and implementing a local development strategy	0	0	-	185	185	100%	0	0	-	0	0	-
Axis 4												
M411 – Competitiveness	554	1,484	37%	253	2,000	13%	656	3,424	19%	1,178	1,515	78%
M412 - Environment/land management	275	591	47%	0	0	-	0	0	-	1,502	2,067	73%
M413 - Quality of life/diversification	6,317	10,017	63%	5,609	14,000	40%	6,396	24,039	27%	8,750	12,430	70%
M421 - Implementingcooperationprojects	0	273	0%	0	0	-	209	400	52%	396	709	56%
M431 - Running the LAG, skills acquisition, animation	1,761	2,073	85%	2,542	3,200	79%	3,486	3,861	90%	2,390	3,195	75%
Axis 5												
M511 - Technical assistance	0	0	-	500	651	77%	5,372	5,816	92%	0	0	-
Total	189,769	199,564	95%	88,113	130,008	68%	297,625	360,801	82%	300,387	321,181	94%

Valencia

Measure	Realised from 2007 to 2014 (EUR '000)	Programm ed for 2007 to 2013 (EUR '000)	Total Public: % on target²
	Total Public	Total Public	
Axis 1			
M111 - Vocational training and information actions	1,460	1,500	97%
M112 - Setting up of young farmers	32,948	40,548	81%
M113 - Earlyretirement	22,512	23,968	94%
M114 - Use of advisory services	326	950	34%
M115 - Setting up of management, relief and advisory services	192	675	28%
M121 - Modernisation of agricultural holdings	55,792	61,126	91%
M122 - Improvement of the economic value of forests	0	0	-
M123 - Adding value to agricultural and forestry products	102,540	119,938	85%
M124 - Cooperation for development of new products, processes and technologies in agriculture, the food sector and in forestry	0	0	-
M125 - Infrastructure related to the development and adaptation of agriculture and forestry	0	2,443	0%
M126 - Restoring agricultural production potential	0	0	-
M131 - Meeting standards based on EU legislation	0	0	-
M132 - Participation of farmers in food quality schemes	0	0	-
M133 - Information and promotion activities	0	0	-
M141 - Semi-subsistencefarming	0	0	-
M142 - Producer groups	0	0	-
M143 - Providing farm advisory and extension services	0	0	-

M144 - Holdings undergoing restructuring due to a reform of a common market organisation	-	-	-
Axis 2			
M211 - Natural handicap payments to farmers in mountain areas	7,068	7,987	88%
M212 - Payments to farmers in areas with handicaps, other than mountain areas	3,945	3,871	>100%
M213 - Natura 2000 payments and payments linked to Dir. 2000/60/EC	0	0	-
M214 - Agri-environmentpayments	126,913	134,928	94%
M215 - Animal welfare payments	0	0	-
M216 - Non-productiveinvestments	0	0	-
M221 - First afforestation of agricultural land	3,518	3,800	93%
M222 - First establishment of agroforestry systems on agricultural land	0	0	-
M223 - First afforestation of non-agricultural land	0	0	-
M224 - Natura 2000 payments	0	0	-
M225 - Forest-environmentpayments	0	0	-
M226 - Restoring forestry potential and introducing prevention actions	9,087	15,694	58%
M227 - Non-productiveinvestments	6,295	7,379	85%
Axis 3			
M311 - Diversification into non-agricultural activities	0	0	-
M312 - Support for business creation and development	0	0	-
M313 - Encouragement of tourism activities	0	0	-
M321 - Basic services for the economy and rural population	0	0	-
M322 - Village renewal and development	0	0	-
M323 - Conservation and upgrading of the rural heritage	0	0	-
M331 - Training and information	0	0	-

M341 – Skills acquisition and animation measure with a view to preparing and implementing a local development strategy	0	0	-
Axis 4			
M411 – Competitiveness	0	0	-
M412 - Environment/land management	0	0	-
M413 - Quality of life/diversification	24,243	45,294	54%
M421 - Implementing cooperation projects	0	0	-
M431 - Running the LAG, skills acquisition, animation	1,275	2,013	63%
Axis 5			
M511 - Technical assistance	524	2,077	25%
	398,638	474,189	84%

8.4 Classification of the measures (RDP 2007-2013) according to the direct and indirect effect on fire prevention in 6 case studies in Italy

Measure	Puglia		Lazio		Sardinia	
	Drivers of landscape change	PREVAIL classification	Drivers of landscape change	PREVAIL classification	Drivers of landscape change	PREVAIL classification
M111 - Vocational training and information actions	C	B3	C	B3	C	D
M112 - Setting up of young farmers	C	B3	C	B3	C	B3
M113 - Early retirement	C	B3	C	B3	C	D
M114 - Use of advisory services	C	B3	C	B3	C	D
M115 - Setting up of management, relief and advisory services	C	B3	C	B3	C	D
M121 - Modernisation of agricultural holdings	A, B, C	B3	A, B, C	B3	H	B2
M122 - Improvement of the economic value of forests	E	B1	E	D	E	B1
M123 - Adding value to agricultural and forestry products	A, B, E	B1	A, B, E	B3	A, B, E	B1, B3
M124 - Cooperation for development of new products, processes and technologies in agriculture, the food sector and in forestry	A, B, E	B1	A, B, E	B3	A, B, E	B1, B3
M125 - Infrastructure related to the development and adaptation of agriculture and forestry	A, E	B1, B3	A, E	B1	A, E	B1
M126 - Restoring agricultural production potential	A, E	B3	A, E	B3	A, E	B3
M131 - Meeting standards based on EU legislation		D		D		D
M132 - Participation of farmers in food quality schemes	A, B	B3	A, B	B3	A, B	B3
M133 - Information and promotion activities	A, B	B3	A, B	B3	A, B	B3
M141 - Semi-subsistence farming	A, B	D	A, B	D	A, B	D
M142 - Producer groups	A, B	D	A, B	D	A, B	D
M143 - Providing farm advisory and extension services	A, B	D	A, B	D	A, B	D
M144 - Holdings undergoing restructuring due to a reform of a common market organisation	A	D	A	D	A	D
M211 - Natural handicap payments to farmers in mountain areas	A, B, C, E	B2, B3	A, B, C, E	B2	A, B, C, E	B2
M212 - Payments to farmers in areas with handicaps, other than mountain areas	A, B, D	B2, B3	A, B, D	B2, B3	A, B,	B3
M213 - Natura 2000 payments and payments linked to Dir. 2000/60/EC	F, G, H	B2	F, G, H	D	F, G, H	D

M214 - Agri-environment payments	A, B	B2	A, B	B3	A, B	B3
M215 - Animal welfare payments	B	B3	B	B3	B	B3
M216 - Non-productive investments	G	B2	G	B3	A, B	D
M221 - First afforestation of agricultural land	G	A/B1	G	A/B1	G	A/B1
M222 - First establishment of agroforestry systems on agricultural land	G	D	G	D	G	D
M223 - First afforestation of non-agricultural land	F	D	F	D	F	D
M224 - Natura 2000 payments	A, B	A	A, B	A	A, B	D
M225 - Forest-environment payments	A, B	D	A, B	D	A, B	B1
M226 - Restoring forestry potential and introducing prevention actions	E	A	E	A	E	A
M227 - Non-productive investments	A, E	B2	A, E	A	A, B	D
M311 - Diversification into non-agricultural activities	G, H	B3	G, H	D	G, H	D
M312 - Support for business creation and development	A, B	B3	A, B	B3	A, B	D
M313 - Encouragement of tourism activities	A, C	B3	A, C	B3	A, C	D
M321 - Basic services for the economy and rural population	A, C	B3	A, C	B3	A, C	B3
M322 - Village renewal and development	C	D	C	D	C	D
M323 - Conservation and upgrading of the rural heritage	A, B	B2	A, B	B2	C	D
M331 - Training and information	A, C	B3	A, C	B3	A, C	D
M341 – Skills acquisition and animation measure with a view to preparing and implementing a local development strategy	C	D	C	D	C	D
M411 – Competitiveness	A, B, E	D	A, B, E	D	A, B, E	D
M412 - Environment/land management		D		D		D
M413 - Quality of life/diversification	F	D	F	D	C	D
M421 - Implementing cooperation projects	C	D	C	D	C	D
M431 - Running the LAG, skills acquisition, animation	A, B, C	D	A, B, C	D	A, B, C	D

Measure	Tuscany		Sicily		Piedmont	
	Drivers of landscape change	PREVAIL classification	Drivers of landscape change	PREVAIL classification	Drivers of landscape change	PREVAIL classification
M111 - Vocational training and information actions	C	B3	C	B3	C	B3
M112 - Setting up of young farmers	C	B3	C	D	C	B3
M113 - Early retirement	C	B3	C	D	C	B3
M114 - Use of advisory services	C	B3	C	B3	C	B3
M115 - Setting up of management, relief and advisory services	C	D	C	D	C	D
M121 - Modernisation of agricultural holdings	A, B, C	B3	A, B, C	B2, B3	A, B, C	B3, B2
M122 - Improvement of the economic value of forests	E	B1	E	B1, B2	E	B1
M123 - Adding value to agricultural and forestry products	A, B, E	B3	A, B, E	B3	A, B, E	B1
M124 - Cooperation for development of new products, processes and technologies in agriculture, the food sector and in forestry	A, B, E	B3	A, B, E	B3	A, B, E	B3
M125 - Infrastructure related to the development and adaptation of agriculture and forestry	A, E	B1, B3	A, E	B1	A, E	C
M126 - Restoring agricultural production potential	A, E	D	A, E	A	A, E	D
M131 - Meeting standards based on EU legislation		D		D		D
M132 - Participation of farmers in food quality schemes	A, B	B3	A, B	D	A, B	D
M133 - Information and promotion activities	A, B	B3	A, B	D	A, B	D
M141 - Semi-subsistence farming		D	A, B	D	A, B	D
M142 - Producer groups	A, B	D	A, B	D	A, B	D
M143 - Providing farm advisory and extension services		D	A, B	D	A, B	D
M144 - Holdings undergoing restructuring due to a reform of a common market organisation	A	B3				
M211 - Natural handicap payments to farmers in mountain areas	A, B, C, E	B2	A, B, C, E	B2	A, B, C, E	B2
M212 - Payments to farmers in areas with handicaps, other than mountain areas	A, B, D	B2	A, B, D	B2, B3	A, B, D	D
M213 - Natura 2000 payments and payments linked to Dir. 2000/60/EC	F, G, H	D	F, G, H	D	F, G, H	D
M214 - Agri-environment payments	G, H	B2	A, B	B3	A, B	B2, B3
M215 - Animal welfare payments	B	B2	B	D	B	D
M216 - Non-productive investments	G, H	B2	G	B2, B3	G	B2

M221 - First afforestation of agricultural land	G	B1	G	A/B1	G	B1
M222 - First establishment of agroforestry systems on agricultural land	G	D	G	D	G	D
M223 - First afforestation of non-agricultural land	F	B1	F	D	F	D
M224 - Natura 2000 payments	A, B	D	A, B	D	A, B	D
M225 - Forest-environment payments	D	A	A, B	D	A, B	B2
M226 - Restoring forestry potential and introducing prevention actions	E	A	E	A	E	A
M227 - Non-productive investments	A, E	B2	A, E	B2	A, E	B2
M311 - Diversification into non-agricultural activities	G, H	D	G, H	D	G, H	D
M312 - Support for business creation and development	A, B	D	A, B	D	A, B	D
M313 - Encouragement of tourism activities	A, C	D	A, C	D	A, C	D
M321 - Basic services for the economy and rural population	C	B3	A, C	B3	A, C	B3
M322 - Village renewal and development	C	D	C	D	C	B3
M323 - Conservation and upgrading of the rural heritage	C	D	A, B	D	A, B	B2
M331 - Training and information	C	D	A, C	B3	A, C	D
M341 – Skills acquisition and animation measure with a view to preparing and implementing a local development strategy	C	D	C	D	C	D
M411 – Competitiveness	A, B, E	D	A, B, E	D	A, B, E	D
M412 - Environment/land management	C	D		D		D
M413 - Quality of life/diversification	C	D	F	D	F	D
M421 - Implementing cooperation projects	C	D		D		D
M431 - Running the LAG, skills acquisition, animation	C	D		D		D

8.5 Other funding schemes

Project N	Country	Programme	Start date	End date	TOTAL BUDGET	EU CONTRIBUTION	URL
LIFE00 TCY/RL/022	Lebanon	LIFE	2001	2005	169,000.00	319,000.00	http://www.afdc.org.lb/projects/p1/autov1.htm ,
LIFE02 ENV/E/000223	Spain	LIFE	2002	2004	1,414,759.16	639,761.00	http://www.velif.com ,
LIFE07 NAT/GR/00028 6	Greece	LIFE	2009	2013	3,035,791.00	2,270,468.00	http://www.parnonaslife.gr/
LIFE08 INF/EE/000260	Estonia	LIFE	2010	2012	300,432.00	150,178.00	http://www.eramets.ee/life/ ,
LIFE08 INF/E/000179	Spain	LIFE	2010	2012	689,535.00	344,467.00	http://www.lifeomontevivo.org ,
LIFE08 INF/PL/000523	Poland	LIFE	2010	2012	1,987,381.00	889,544.00	http://www.ogienwlesie.lasy.gov.pl ,
LIFE08 ENV/GR/00055 3	Greece	LIFE	2010	2013	695,823.00	341,419.00	http://www.forestcities.gr ,
LIFE09 ENV/ES/00045 0	Spain	LIFE	2010	2013	1,024,298.00	511,999.00	http://www.bioenergy-project.eu ,
LIFE09 INF/PL/000275	Poland	LIFE	2010	2013	1,500,377.00	750,188.00	http://www.ogienwlesie.lasy.gov.pl/24 ,
LIFE08 ENV/GR/00055 8	Greece	LIFE	2010	2013	2,337,114.00	1,158,803.00	https://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.createPage&s_ref=LIFE08%20ENV/GR/000558
LIFE09 NAT/GR/00032 6	Greece	LIFE	2010	2014	1,324,725.00	653,362.00	https://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=3792
LIFE08 ENV/GR/00055 4	Greece	LIFE	2010	2014	1,719,112.00	833,356.00	https://www.life-adaptfor.gr/
LIFE08 NAT/GR/00053 3	Greece	LIFE	2010	2014	1,544,355.00	741,908.00	http://www.ellet.gr/framme/
LIFE10 ENV/GR/00061 7	Greece	LIFE	2011	2014	1,305,865.00	652,932.00	http://www.arcfuel.eu/index.php/en/ ,
LIFE11 ENV/GR/00097 5	Greece	LIFE	2012	2015	1,617,734.00	808,041.00	http://www.flire.eu/en/ ,

LIFE12 ENV/ES/00073 0	Spain	LIFE	2013	2017	593,592.00	295,296.00	http://cpf.gencat.cat/en/cpf_03_linies_actuacio/cpf_transferencia_coneixement/cpf_projectes_europeus/cpf_life_demorgest/ ,
LIFE13 INF/HU/000827	Hungary	LIFE	2014	2019	943,830.00	458,002.00	http://erdotuz.hu ,
LIFE13 NAT/ES/00024 0	Spain	LIFE	2014	2018	1,511,494.00	755,747.00	http://lifegarajonayvive.com/ ,
LIFE13 BIO/ES/000094	Spain	LIFE	2014	2019	3,561,825.00	1,763,000.00	http://lifemontserrat.eu ,
LIFE15 CCA/FR/00002 1	France	LIFE	2016	2018	1,314,330.00	788,598.00	http://www.foreccast.eu/fr/le-projet-foreccast/en-bref.html ,
LIFE16 ENV/ES/00055 9	Spain	LIFE	2017	2020	1,239,813.00	659,828.00	http://lifetec.uvigo.es/ ,
LIFE16 CCA/GR/00005 0	Greece	LIFE	2017	2021	2,694,038.00	1,562,964.00 €	http://www.lifeterracescape.aegean.gr/
	United Kingdom	LIFE (Environment and climate action)	2015	2021		12 034 587	www.moorsforthefuture.org.uk
608038-CREA-1-2019-1-FR-MED-TV	France	Creative Europe	2019	2020	138,000.00		https://ec.europa.eu/programmes/creative-europe/projects/ce-project-details/#project/608038-CREA-1-2019-1-FR-MED-TV
EUFOFINET		Interreg IVC	2010	2012	2,183,246	1,734,285	http://www.interreg4c.eu/
HERON		Interreg V-A - Greece-Cyprus	2015	2019	1,338,858	1,138,029	http://www.greece-cyprus.eu/
FIRE-RS		Interreg V-B - South West Europe	2016	2019	1,932,583	1,449,437	http://www.fire-rs.com/en/
PLURIFORM		Interreg V-B - South West Europe	2016	2019	1,820,916	1,365,687	https://plurifor.efi.int/es/
MONTCLIM A		Interreg V-B - South West Europe	2019	2021	1,401,811	1,051,358	https://www.montclima.eu/

FORMAN-RISK		Interreg V-B - South West Europe	2019	2022	1,568,867	1,176,650	https://www.interreg-sudoe.eu/gbr/projects/the-approved-projects/208-forest-management-and-natural-risks
REMAS		Interreg V-B - South West Europe	2019	2022	1,799,644	1,349,733,	www.sudoeremas.com/
RISKCOAST		Interreg V-B - South West Europe	2019	2022	1,435,000	1,076,250	https://www.interreg-sudoe.eu/gbr/projects/the-approved-projects/211-development-of-tools-to-prevent-and-manage-geological-risks-in-the-coasts-linked-to-climate-change
0577_FORVALUE_1_E		Interreg V-A - Spain-Portugal (POCTEP)	2018	2019	1,370,130	1,027,597	https://www.poctep.eu/en/2014-2020/forvalue-gesti%C3%B3n-innovadora-para-la-valorizaci%C3%B3n-y-resiliencia-del-espacio-forestal
0753_CILIFO_5_E		Interreg V-A - Spain-Portugal (POCTEP)	2018	2021	24,666,660	18,499,995	http://cilifo.eu/
TERRAMATER		Interreg V-A - Spain-Portugal (POCTEP)	2018	2021	1,106,805		https://www.terramaterpoctep.eu/
0626_GEFRECON_6_E		Interreg V-A - Spain-Portugal (POCTEP)	2018	2021	1,000,324	750,243	https://www.gefrecon.eu/
COOPEREM		Interreg V-A - Spain-France-Andorra (POCTEFA)	2018	2022	2,556,505	1,661,728	https://interior.gencat.cat/en/el_departament/accio_exterior_i_ue/projectes_europeus/bombers/projectes_actius/COOPEREM-2018-2020/
MED-FORESTE		INTERREG V-A Italy - France (Maritime)	2019	2022	1,109,908	943,421	http://interreg-maritime.eu/
MEDCOOPFIRE		INTERREG V-A Italy -	2019	2022	1.800.739	1.530.628	http://interreg-maritime.eu/

		France (Maritime)					
Red_GesFoG O		Interreg V- A - Spain- Portugal (Madeira- Azores- Canarias (MAC)	2019	2022	590,024	501,520	http://www.gesfogo.ulpgc.es/index.php/es/contacto-es

8.6 Costs for intervention of active fire prevention according to regional price lists

Description	Unit cost			
	€ m ⁻¹		€ ha ⁻¹	
	Min	Max	Min	Max
Firebreaks				
Clearing forest firebreaks	2,69 ¹	12,94 ²		
Fire-fighting service roads				
Establishment of roads to prevent (fuel breaks) and extinguish wildfires (service roads)	17,04 ³	69,46 ⁴		
Thinnings				
Thinning in broadleaf or conifer forests			1683,65 ⁵	6750 ⁶
Clearing of shrubs				
Clearing of the understory vegetation (herbaceous layer and shrubs), including costs of the removal and the disposal of the residuals			238,8 ⁷	3025 ⁸
Conifer pruning				
Pruning of conifer trees in plantations up to the height of 2 m from the ground			312,46 ⁹	1989,15 ¹⁰
Post-fire restoration				
Post-fire restoration including dead, burned or damaged trees cutting and stacking			2868,43 ¹¹	3824,57 ¹²

¹ Service road (mean width 2,5 m) with the function of firebreak, with natural roadbed, realised with the use of mechanical devices. Complementary works for the water drainage and establishment of manoeuvre areas are included. Clearing of vegetation at the sides of the road are not included.

² Firebreak (mean width 20 m including the eventual road) obtained by the partial cutting of trees and the clearing of the existing shrubs.

³ Forest road aimed at fire-fighting or supporting forestry operations (minimum width of 2,5 m and maximum of 5,5 m). Docks, bumps, earth-moving, embankment and the other complementary works for the water drainage are included (except the road-crossing ones with more than 2,5 m in length).

⁴ Forest road aimed at fire-fighting or supporting forestry operations (mean width of 3,8 m).

⁵ Thinning from below (30% of standing trees) in an adult pine forest. Cutting, processing and removing timber and other residuals are included.

⁶ Thinning from below (from the 25% up to the 40% of standing trees) in an adult pine forest. Cutting, processing and removing timber and other residuals are included.

⁷ Clearing of the understory vegetation (herbaceous layer and shrubs), including costs of the removal and the disposal of the residuals.

⁸ Clearing of the understory vegetation (herbaceous layer, shrubs, understory trees), including costs of the removal and the disposal of the residuals.

⁹ Pruning of conifer trees in plantations up to 1/4 of the tree height. Costs of the removal and the disposal of the residuals are included.

¹⁰ Pruning of conifer trees in mature plantations up to 1/3 of the tree height. The cut and the removal of dead or severely damaged trees is included. The accurate removal and disposal of any timber residual in a 10-15 m belt around the forest perimeter and along forest roads is also included.

¹¹ Forest restoration in burned forests (damaged forest area \leq 80%) consisting in removing dead, burned and/or crushed trees, delimbing, cross cutting and spreading branchwood. Every other cost included.

¹² Forest restoration in burned forests (damaged forest area > 80%) consisting in removing dead, burned and/or crushed trees, delimbing, cross cutting and spreading branchwood. Every other cost included.