Forest Cities

Layman’s Report

June 2013
Συμμαχία των Τοπικών Αρχών για την Πρόληψη των δασικών πυρκαγιών - LIFE08 ENV/GR/553

Local Authorities Alliance for Forest Fire Prevention – LIFE08 ENV/GR/553

Η συνολική διάρκεια του έργου είναι 42 μήνες / The project duration is 36 months

Ημέρα Έναρξης / Starting Date : 01 Ιανουαρίου 2010 / 01 January 2010
Ημέρα Λήξης / End Date: 30 Ιουνίου 2013 / 30 June 2013

Ο συνολικός προϋπολογισμός του έργου ανέρχεται στα 698.323€ ενώ η συγχρηματοδότηση της Ε.Ε. είναι 341.419€ (49,71%).

The total project budget is 698.323€ where the EU requested contribution is 341.419€ (49,71%).

The budget allocation is presented to the following table / Στον παρακάτω πίνακα αναγράφεται η κατανομή του προϋπολογισμού ανά εταίρο.:
Forestcities Project Description

The Regional Union of Municipalities of Attica (PEDA) has achieved its participation to the most popular program of the EU concerning the environment, the LIFE program, under the title “Local Authorities Alliance for Forest Protection”. The main purpose is the reinforcement of the role of Local Government in preventing and suppressing forest fire.

The LIFE program is a program of high quality standards and strict evaluation criteria, that funds mostly innovative motions and, in particular, these that set as a goal the experience exchange and the highlighting of good practices in matters of environmental protection. Moreover, it promotes the trilateral cooperation (authorities, university-research institutes, private operators) as well as, the promotion of new technologies and telematics in the sector of protecting the environment.

Through this program, PEDA and the other participants will be able to study thoroughly what is being done for forest protection and the extinguishing of forest fires in the other south-Mediterranean European countries (Italy, Spain, S. France, Portugal and Cyprus) regarding the actions and powers of their local government and which of these can be practised creatively in our country, according to the current institutional framework and any improvements.

Also, the aim is to create a network of Municipalities which will promote the collaboration, the exchange of knowledge, the organisation of information campaigns, and the reinforcement of volunteering for the protection of the forests. Via this network, the role of Municipalities in preventing forest fires will be strengthened whereas the development of a simplified information system will give the opportunity of dynamic valuation and prevention of fires locally by observing weather and climate changes.

Project Objectives

✓ To strengthen the role of the Greek Local Authorities in forest fire prevention
✓ To introduce best practices in Local Authorities in forest fire prevention
✓ To create a National Cities Network for forest fire prevention
✓ To implement environmental policies and legislation regarding forest fire prevention at local level
✓ To motivate the central governmental authorities about the role of the Local Authorities in forest fire prevention
✓ To provide support to better environmental governance by broadening local authorities role
✓ To strengthen the capacities of local authorities is respect to forest fire prevention
✓ To develop cost – effective measures for under-resourced Greek Local Authorities
✔ To develop a simplified Informative System for the Dynamic Assessment of the Forest Fires in Local Authorities

✔ To develop simplified methods for forest fire prevention in Local Authorities

✔ To collect, analyse and disseminate policy-relevant information concerning forests fires

✔ To demonstrate the benefits of implementing simplified tools for forest fire prevention

✔ To raise environmental awareness in citizens and other stakeholders about forest fire prevention

✔ To promote forest fire prevention in Local Authorities through the use of Information Technology

The project partners are:

1) Regional Union of Municipalities of Attica (P.E.D.A.)

The Regional Union of Municipalities of Attica (P.E.D.A.) is a nonprofit making organisation member of the Central Union of Municipalities and Communities of Greece (KEDKE) constituted by 66 municipalities within the boundaries of the Attica region and the islands of the Argo-Saronic Gulf. PEDA is an exclusively political, coordinating and supporting structure of the Municipalities and Communities of the Prefecture of Attica. In order to function in the best efficient way, thematic Committees have been created which are constituted by members of the Board of Directors, Mayors, town counselors, Presidents’ of Communities. The Union also keeps a close relation with the Ministry of the Interior and other competent Ministries by developing initiatives, studies and interventions relative to subjects as local and regional development and in general the institutional framework of local government.

2) University of Athens

The Laboratory on Prevention and Management of Natural Hazards was established in 2003 within the Sub Faculty of Geology and Geoenvironment of the University of Athens. The Laboratory participates in a number of research projects financed by national, European or other international and bilateral organizations. Current activities are focusing on emergency planning, development of action plans, seismic hazard, tsunamis, forest fires, floods, landslides and volcanic hazard.

The scientific personnel includes 14 members of the academic staff of the Geology and Geoenvironment Sub Faculty, 8 research and administrative members, 15 affiliated members from other institutions and 28 postgraduate students. The scientific activities of the Laboratory include the organization of seminars, lectures, symposia and related disseminating scientific activities involving the scientific as well as the social sector. It is an educational and research unit focusing also to the
undergraduate students of Geology and Geoenvironment and to the Post-graduate Msc course on Prevention and Management of Natural Hazards which initiated in 2005. This Msc program accepts approximately 20 students each academic year from various disciplines with diplomas of Geology, Engineering, Physics, Chemistry, Geography, Environment, Forestry, Informatics and Geoinformatics and other related subjects.

3) Technical University of Crete

The Technical University of Crete (TUC) is a State University under the supervision of the Ministry of Education. It was founded in 1977. It is the second Technical University in Greece and admitted the first students in 1984. The purpose of the institution is to conduct research, to provide undergraduate and graduate programs in modern engineering fields as well as to develop links with Greek and foreign industry. There are 132 faculty members and over 50 visiting lecturers, associate professors and assistant professors. There are ~2700 undergraduate students and over 300 graduate students enrolled at the University. The University participates in co-operative ventures with colleagues and researchers in other institutions and industries. The campus is located 7 km Northeast of Chania-Crete-Greece and covers an area of 750 acres.

The Technical University of Crete is a modern technological institution that has established an admirable reputation both in Greece and abroad. Although relatively new, the University has already contributed in many ways to the betterment of the community. The TUC’s goal is to move forward continuously striving for excellence as we firmly hold fast to the principle that knowledge, the most valuable of human resources, provides us with the single most important means from which to develop solutions to the complex and challenging problems that face humanity today.

The Technical University of Crete is comprised of six departments, five of which grant engineering degree upon completion of a five-year duration courses and diploma thesis elaboration and defense. Post graduate studies leading to MSc and PhD degrees are well established and operating in TUC several years now. The Department of Sciences provides the scientific support for the curricula.

4) Municipality of Serres

The city of Serres is located northeast of Thessaloniki in distance 85 km and is the capital of Prefecture of Serres. Furthermore, it is near to the boundaries of Bulgaria in distance 45 km. According to the 2001 census, the resident population of Municipality of Serres is 56,145 people, meaning the 27.87% of the population of Prefecture of Serres. The municipal extent is 253 square km. Municipality of Serres includes 4 municipal departments: Municipal Department of Serres,
Municipal Department of Elaionas, Municipal Department of Eptamili and Municipal Department of Oinoussa.

5) Municipality of Ilioupoli

The Municipality of Ilioupoli is one of the 43 municipalities in the Attica region. It is located in the eastern part of Attiki, only 8.5km from the center of Athens, at the foothills of Hymettus Mountain. The population of the Municipality exceeds 100.000 people in an area of 13.500 acres, where 8.500 acres are the populated area and 5.000 acres is mostly forests in the Hymmetus Mountain. The population consists mostly senior and higher education with moderate income status and high environmental awareness.

General achievements of the project

1) Local Authorities Network

In the framework of Action 2 of the project, PEDA created a local authorities network of 120 Municipalities. Through this network, PEDA was disseminating useful material, organised training events, environmental events, etc. Additionally, the e-forum platform gave the chance to members to communicate in real time as long as to have access to all the project deliverables.

2) Recording and assessment of the current situation in Greece regarding forest fire prevention

University of Athens developed 2 sets of questionnaires in order to record the current situation in Greece regarding the forest fire prevention. PEDA distributed and collected answers from over 120 municipalities in Greece. The questionnaires main scope was to record issues like:

- The legal framework current status
- Technical infrastructure and planning
- Planning implementation status
- Civil protection departments problems

The research covered over the 40% of the total Greek municipalities covering over the 50% of the Greek population.
Some of the basic results are presented below. More information is available at the project website at [www.forestcities.gr](http://www.forestcities.gr).

**1. Is there a civil protection department / office in your municipality?**

- **Yes** 80.7%
- **No** 19.3%

**2. Head of the Civil protection department is:**

- **An elected member of the council** 51.25%
- **A permanent employee** 48.75%

**7. Has your department compiled a local Action Plan?**

- **Yes** 76.8%
- **No** 23.2%

**14. Is there a fire protection planning in the municipality?**

- **Yes** 81.8%
- **No** 18.2%

**14a. How often this planning is being updated**

- **Yearly** 81.5%
- **Every 2 years** 3.1%
- **Has never been updated** 15.4%
3) Eforum

In order for an improved communication among the network members as long as the questionnaire distribution, project team created an online e-forum. Its functionality is described with the following flow chart.

![E-Forum main functions](image)

**Picture 3: e-forum flow chart**

4) Experts Working Group

The National Experts Working Group convened 3 times during the project. The main target of the WG was:

- To develop effective measures for the forest fire prevention
- To consult on the development of the local action plans
- To consult and contribute to the development of the draft National Action Plan
5) Development of 26 new measures on Forest Fire prevention
The measures are:

1. Use of a Computer with a GIS installed software by specialized personnel, for the annual compilation of action plans for prevention planning and also for emergency response.
2. Upgrading the municipality civil protection office into an operation center.
3. Installation and use of meteorological stations.
5. Development of a pattern-guide regarding the organization of a civil protection department of a municipality.
6. Preparation of a pattern/guide to assist the development of local action plans.
7. Fuel reduction actions.
8. Testing of equipment and infrastructure maintenance.
9. Emphasizing on rapid-short intervention times into a wildfire based on proper deployment of forces and increase of the water supply points.
11. Determination of readiness levels for personnel and equipment.
12. Compilation of fire hazard maps.
13. Use of local dynamic systems for real time fire risk prediction.
15. Public awareness campaigns.
18. Fuel mapping.
19. Rigorous and thorough investigation process publication of sentences.
20. Effective decentralization of the coordination for means and resources.
22. Insurance and certification of volunteers.
23. Long-term prohibition of construction in burned areas.
24. Clarification of the roles between the Forestry, the Fire department, the local authorities and the voluntary organizations.
25. Development of common databases for all civil protection bodies.
26. Development of a common operating system for all civil protection actors.

Local Action Plans are incorporating all the available data in detail for the areas focused using GIS technology. Municipalities have the ability to assess anytime all the information in several maps as long as to update them easily yearly using the minimum man-hours and budget.

Picture 5: Fire Risk Map for the forest area at the Municipality of Ilioupoli
7) Support on the development of the local action plan of the Municipality of Agia Paraskeui, the development association of Western Attica Municipalities and the villages at Chios Island.
Picture 7: Fire Risk Map for the forest area at the Municipality of Agia Paraskevi
Picture 8: Fire Risk Map for the forest area at the Development Association of Municipalities of Western Attica (ASDA)
8) DFF-Risk

A simplified Informative System for the Dynamic Assessment of the Forest Fires Risk developed by Technical University of Crete (TUC), through the use of forest fire risk assessment indicators where meteorological and climate parameters incorporated. Analytically, new techniques used for the creation of automatically adapted index thresholds depending on the region anaglyph (e.g., mountainous terrain), vegetation flammability, time of the year, real time meteorological conditions, distance from residential areas, etc.
9) Development of the National Action Plan

In the framework of the expert group meetings, the draft national action plan for the prevention of forest fires was developed and distributed to central governmental offices, the prime minister’s office and the Greek Parliament. On this occasion, the final project conference was attended by Members of the Greek Parliament, and representatives of ministries to speak on the proposed action plan.

10) Training Material

During the preparation of the training sessions in many regions of Greece, the project team developed a "Guide for the Prevention of Forest Fires" which includes in detail the steps for developing a local action plan, install and operate the DFF-Risk platform and instructions for installing an educational center.

11) Communication activities

The following map shows the communication and dissemination activities occurred during the project.
12) Project website

In order to access on more details about the project and its outcomes, please visit the project website at [www.forestcities.gr](http://www.forestcities.gr)
Financial benefits from the project

The absence of action plans for the prevention of forest fires in Greece in combination with the downsizing of Municipalities has created the need for creating "green" jobs, permanent or temporary, on the development and monitoring of the implementation of Action Plans. For this reason the latest EU publication entitled "LIFE creating green jobs and skills", the project Forestcities presented as the opportunities open to municipalities to create new jobs. Additionally, the measures proposed for the prevention of forest fires, mostly are measures of little or no cost. The material provided by the project is completely free and available for anyone interested.
Conclusion
The project Forestcities was able to analyze in great detail the current situation in Greece regarding the level of prevention of forest fires in Greece. The analysis raised the inability of local authorities and the central government to develop modern, action plans by doing use of new technologies.

At the same time, the need for further and ongoing training for public servants on the prevention and new technologies that can contribute to more effective prevention of forest fires was highlighted.

The involvement of local government in the actions of the project highlighted the importance of active presence, knowledge and labor representatives, but also special importance of the role of civil administration of both local and national level was given.

Finally, it is worth mentioning that the existing institutional framework which although relatively old, has not been applied to 100% resulting in significant gaps in prevention.

THE LESS CATASTROFIC FIRE IS THE ONE THAT NEVER STARTED