STUDY GUIDE

"Certified Environmental Actors "-**CEA**

The project is co-funded by the European Regional Development Fund and by national funds of the countries participating in the Interreg V-A "Greece-Bulgaria 2014 - 2020" Cooperation Programme.

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A few words about theInterreg

THE COOPERATION PROGRAMME GREECE – BULGARIA 2014-2020

The European Territorial Cooperation Programme 2014-2020 is a cross-border cooperation programme which is co-funded by the European Unionunder the auspices of the European Regional Development Fund.

The Programme aims to promote cross-border cooperation by bringing together the different actors in the cross-border area so as to enhance the development of the region and its transformation into a center of sustainable development.

Greece and Bulgaria, two neighboring countries with a rich past, have entered a time of closer cooperation since the end of the 1990s, thanks to the INTERREG Program "Greece-Bulgaria".

The basic idea behind "INTERREG" is that countries are facing a number of issues that can be better resolved if they work together with their neighbors rather than if everyone remains confined to their borders.

All actions are taking place in the areas ofEvros, Kavala, Xanthi, Rodopi, Drama, Thessaloniki, Serres, Blagoevgrad, Smolyan, Kardzhali and Haskovo.

A few words about the project

"Certified Environmental Actors" –**CEA**

The Hunting Federation of Macedonia & Thrace participates as lead beneficiary in the project "CertifiedEnvironmentalActors – CEA", in the framework of the European Territorial Cooperation Programme"INTERREGV-A Greece - Bulgaria" 2014 - 2020. The project has been approved under the priority axis 2: "A SustainableandClimateadaptableCross-Borderarea" and in particular under the investment priority 6d: "Protectingandrestoringbiodiversity, soilprotectionandrestorationandpromotingecosystemservicesincluding NATURA 2000 andgreeninfrastructures".

The following beneficiaries take part in the project:

Beneficiary 2: Association of Hunters in K. Nevrokopi "ARTEMIS"

Beneficiary 3: Municipality of Kato Nevrokopi

Beneficiary 4: Association "EURORADAR" in Bulgaria

Beneficiary 5: Association of Hunters and fishermen "Sokol" in Bulgaria

The project "CEA" identifies in the cross-border area a large number of NATURA 2000 protected areas and unique ecosystems with rare biodiversity richness.

In addition, it is observed that there is a large number of hunters, members of local hunting associations, and other stakeholders who can help protect biodiversity and natural resources. The main objective of the project is to protect and preserve biodiversity and ecosystems through education, mobilization and activation of environmental actors. In this way,"Environmental actors" such as hunters, forest rangers, etc. will have the necessary knowledge and skills to help protect biodiversity in the cross-border area.

The project will develop the necessary educational tools, framework and infrastructures that will be piloted to the population of the cross-border area. Finally, it is expected that the publicity and communication plan will focus on changing existing national and regional policies towards a model based on education and raising awareness.

Description of training framework

Being the lead beneficiary of the project, one of the key actions of the Hunting Federation of Macedonia and Thrace for the implementation of the approved cross-border cooperation project entitled "Certified Environmental Actors" (CEA) is to develop the training framework. This project identifies the great biodiversity and unique ecosystems encountered in the cross-border area. It is also noted that there is a large number of hunters, who are members of local hunting associations, as well as other stakeholders that can contribute to the protection of biodiversity and natural resources.

Thus, the main objective of the approved project is to educate all potential stakeholders on environmental and biodiversity conservation through theoretical training by attending thematic seminars and traineeships. The aim is that after completion of the training the trainees will be able to obtain a training certificate.

Although it is pursued to cover as much as possible the material concerned, this first attempt does not in any way lack deficiencies, omissions, heterogeneity between the individual chapters as well as possibly some errors. We rely on the anticipated suggestions, observations and contributions of each prospective reader so that it will be complemented and improved in its forthcoming editions, thereby making it equivalent to similar versions of hunting organizations of other countries.

The Hunting Federation of Macedonia and Thrace with its participation in the European Cooperation Program "GREECE-BULGARIA 2014-2020", in the framework of the project "Certified Environmental Actors" (CEA), undertakes the following actions:

- Collaboration with a special researcher who will prepare a study on the proposal to change the hunting legal framework in cooperation with a Bulgarian researcher. The researcher will also communicate the proposal of changing the hunting legal framework to stakeholders and policy makers. The expert must have a Forestry Degree and proven experience in hunter’s education, wildlife management and organization and operation of hunting organizations.
- Translation from Greek into English of the certification framework and manual.
- Collaboration with special trainers - training teachers. Specific collaboration with an expert in training game guards who will assist in the design of training programmes and material (6 thematic certification courses). 6 educational books translated from Greek into English.
- Collaboration with a specialized education consultant who will be an assistant to the education coordinator and will assist in the coordination of the educational process (theoretical and practical) that will take place at the Training and Certification Center and in the Field of Exercise of the Environmental Actors. The consultant should have organizational and educational experience in adult education and be relevant to 'outdoor activities'.
- Working with a Forester - Game Biologist for training and preparation of actors. The expert must have a Forestrydegree and have experience in gamemanagement and organization and operation of hunting organizations.
- Collaboration with a Forestry officerorlawyerfor the training and preparation of the actors. The trainer should have a Forestry or

Law degree and over 10 years of experience in hunting and environmental legislation and hunting organizations.

- Collaboration with a Shotgun Shooting Trainer for the training and preparation of the actors. The trainer should have a coaching degree and over a decade of experience in training shooters and hunters in shotgun shooting.
- Collaboration with a Civil Protection Expert for the training and preparation of actors. The trainer should have over a decade of Civil Protection experience.
- Collaboration with a Certified Paramedic for training and preparation of actors. The trainer should have over a decade of experience in rescue and first aid matters.
- Collaboration with a Veterinarianfor the training and preparation of actors. The trainer should be a veterinarian and have over a decade of public health experience.
- Collaboration with a Police Officer or Lawyer for the training and preparation of actors. The trainer should be a Police Officer or Lawyer and have over a decade of experience in public policy control and citizen approach.

During the training the result of the study will be presented by an expert proposing a change in the legal framework for hunting concerning the training of young as well as experienced hunters in cooperation with a Bulgarian expert. The expert will also communicate the proposal to change the hunting legal framework to stakeholders and policy makers. Training participants may be briefed prior to the implementation of the training program so as to ensure the preparation of the trainees and participation in suggestions for future actions.

Training modules

		PROSPECTIVE HUNTERS		**HUNTERS**	**WILDLIFE MANAGEMENT STAFF**	**GAME GUARDS**
Instructor specialty	Subject	Theory hours	Practical training hours	Theory hours	Theory hours	Theory hours
Forester–game manager	Species Biology - Identification	2	1	4	2	6
	Wildlife management	2		2	2	3

	CERTIFIED ENVIRONMENTAL ACTORS		
Instructor specialty	Subject	Theory hours	Practical training hours
Forester–wildlife manager	Identification of popular species	2	3
	Observation of birds and mammals	2	3
	Wildlife management	2	

		PROSPECTIVE HUNTERS	**HUNTERS**	**WILDLIFE MANAGEMENT STAFF**	**GAME GUARDS**	**CERTIFIED ENVIRONMENTAL ACTORS**
Instructor specialty	Subject	Theory hours	Theory hours	Theory hours	Theory hours	Theory hours
Lawyer	Hunting & environmental legislation	3	4	4	3	3

		PROSPECTIVE HUNTERS		**HUNTERS**		**WILDLIFE MANAGEMENT STAFF**		**GAME GUARDS**	
Instructor specialty	Subject	Theory hours	Practical training hours	Theory hours	Practical training hours	Theory hours	Practical training hours	Theory hours	Practical training hours
Shooting coach	Firearms – ammunition	2	3	2	4	2	3	3	3
	Safety	2	4	2	4	2	4	3	3

		PROSPECTIVE HUNTERS	**HUNTERS**		**WILDLIFE MANAGEMENT STAFF**		**GAME GUARDS**	
Instructor specialty	Subject	Practical training hours	Theory hours	Practical training hours	Theory hours	Practical training hours	Theory hours	Practical training hours
Civil protection expert	Civil Protection	2	2	2	2	1	3	3

	CERTIFIED ENVIRONMENTAL ACTORS		
Instructor specialty	Subject	Theory hours	Practical training hours
Civil protection expert	Civil Protection	2	3
	Survival	1	2

		PROSPECTIVE HUNTERS		HUNTERS	WILDLIFE MANAGEMENT STAFF		GAME GUARDS		CERTIFIED ENVIRONMENTAL ACTORS
Instructor specialty	Subject	Theory hours	Practical training hours	Practical training hours	Theory hours	Practical training hours	Theory hours	Practical training hours	Practical training hours
Certified paramedic	First Aid	1	2	2	1	1	3	3	2

		PROSPECTIVE HUNTERS	HUNTERS	WILDLIFE MANAGEMENT STAFF	GAME GUARDS	
Instructor specialty	Subject	Theory hours	Practical training hours	Theory hours	Subject	Theory hours
Veterinarian	Hunting dogs	1	2	1	Hunting dogs - legislation– public health	3

	GAME GUARDS	
Instructor specialty	Theoryhours	Practical training hours
Lawyer orPolice Officer	3	3

Purpose of publication

One of the actions of the programme was to develop guidelines for:

a) the inventory of the current situation,

b) the planning of hunting monitoring programmes,

c) thedesignof training programmes on sustainable management and outdoor activities and

d) thedesign of information and public awareness programmes

The formulation of these guidelines contributes to the implementation of a Nature Conservation Strategy. The purpose of this publication is to describe and explain the training mechanism in order to facilitate the design of training programmes for human resources in the hands of which the sustainable management of renewable natural resources is largely entrusted.

1. INTRODUCTION

Ensuring the conservation of game resources requires the integration of the sustainable management of natural ecosystems into individual sectoral policies, e.g. for agriculture, hunting, tourism, etc. As this integration progresses very slowly, natural ecosystems continue to degrade and limit their extent. On the other hand, the implementation of any positive policy cannot succeed without sufficient scientific knowledge and coordination of positive actions.Scientific progress in all areas related to the functioning and management of ecosystems, ongoing research on the application of new management methods, practices and tools and the increasing use of natural resources to meet human needs make the role of

those dealing with the management and decision makers leading.The flow of knowledge and information, its accessibility, the need that this information is easily understood, the way it is presented and used require a specific mechanism to facilitate an informed decision-making process for the sustainable use of natural resources. Training is a key component of this mechanism. Properly designing and implementing training programmes about hunting management and outdoor activities is believed to help streamline the scientific knowledge generated and the experience towards the officials who either manage such resources or make decisions that affect their present and future.

The purpose of this publication is to describe and explain the training mechanism in order to facilitate the design of training programmes for human resources, which are largely entrusted to sustainable management. The body of this text is based on:

• the development of the methodological tool for training

• the successful adaptation and implementation of this methodological tool in the project area

• the experience of the Hunting Federation of Macedonia and Thrace in the implementation of training activities and in the partnerships it hasdeveloped with other training organizations and services.

DEFINITIONS

Aim of a training programme

The term training means the transmission of scientific knowledge and know-how to people whose decisions or activities affect natural resources. In particular, it is important to train people who are or will soon be in active action. School, basic university education and public awareness and information activities are not included. Finally, a distinction between "training" and "information" should be made.

Training is aimed at people who manage the natural environment, while information is intended to inform and raise awareness of wider social groups or even the entire population. The overall purpose of a training programme about game resources is to develop human skills directly related to their management and protection. It is necessary to create an active network, structured in close collaboration with public and / or private actors, recognized for their technical or teaching experience or their ability to mobilize target groups in order to ensure duration of this development and achieve to move to action priority target groups.

Training for sustainable management is not an end in itself, nor is it the only solution to all recognized problems. It is only a valuable tool among others, for solving problems and achieving some goals. It may have a "therapeutic" or preventive character, to refer to a very specific subject or a more general reasoning. It can also be a tool for better decision making or prudent management in the field. To be effective, however, it must be planned and implemented on the basis of a system or mechanism (training engineering).

Supply and demand seminars

When examining training programmes and training organizations in Greece, it was found that the most common way of implementing training programmes was through subsidies from the European Social Fund (managed by each Region), to the bodies making the requests. Most of these programmes were aimed at young, mostly unemployed, scientists or not. This has generally not worked well, leading to the need to change the overall handling of Community funds allocated for training. Most training programmes belong to the type of "supply" (and not the "demand" type) with all the disadvantages that this entails: target groups are not usually able to make effective use of training, trainees have little involvement in the overall process, there is no continuity, and the final impact of training remains unknown.

The formulation of the goals and the design of the programmesare in most cases based on the views of the applicants and the organizers and is not the result of the needs of the trainees being identified, with reference to national and European policies. In addition, there are usually decisive constraints on the sources of funding available and the eligibility of the projects concerned.

On the contrary, demand-based training programmes are planned and delivered on the basis of training needs. They are based on the analysisof participants' needs for training and allow for an objective assessment of the improvement offered to trainees, as the desired level of improvement has been set in advance. In addition, their design takes into account the economic, social and cultural conditions of the area.

THE MECHANISM OF TRAINING

This mechanism includes five successive stages: analysis, structure, planning, implementation and evaluation.

Analysis

Analysis is the first and most critical step. It recognizes those components of natural resource management on which training can be effective. For the habitat type (there may be more) we are interested in, at this stage the following are taken into account:

• What are the current conditions in terms of physical features, ecological, economic, social value? What are the opportunities for sustainable development and what threats does it face?

• Who are the people who control the present and the future of a natural resource, who would have access to training and who would be able to apply what they are taught more effectively? Do these people create a group large enough to justify the implementation of training programmes?

• What do these people expect from a trainingprogramme?

• Is the need for training clear? Is it in line with the goals of the training organization? The need for training can be defined as the difference between the skills required and the skills that actually exist. Thus, an assessment of training needs presupposes that it is possible to identify each person's skills and, above all, that there is a clear picture of what their required skills are. As the people we are interested in come from many places and sometimes have complex work, often there is no clear

picture of the qualifications required. It is therefore necessary to identify this picture for each training target group, in relation to the training objectives set.

The elements which have to be considered are:

• scientific knowledge,

• know-how,

• behavior and social skills,

• receptivity to learning.

The effectiveness of this training depends on the success of this stage. This is also the main process that separates training based on market demand from training based on market supply.

Structure

The analysis is followed by the conformation of the structure of a training programme. At this stage the training is linked to the existing conditions and to the purpose pursued. At this point are the bodies that can provide training to each target group identified. There are also bodies and persons with experience in management or other areas covered by training identified, and finally, co-operation is established between them, with clear responsibilities and limitations on each side.The training needs identified in the previous stage are expressed here as training purposes, that is to sayas thedesirable attitude and behavior thatshould be adopted during daily work of the person after the end of training. The objectives should be very carefully defined since they determine the content of the training programme and its evaluation. Ideally, an objective level should

be described at which training can be considered complete, e.g. the knowledge of a method, the handling of a tool, the acquisition of information, etc. The goals should be clearly expressed, ideally in the form of some desired outcome (not as a learning process).

The preparation of a training programme requires the optimal combination of:

i) factors related to the trainees (availability, level of knowledgeetc.) and
ii) external factors (available budget, training experienceetc.).
The methods that are appropriate for the trainees and the purposes of the training are selected afterwards.

Planning and organization

The training programme is organized at the planning stage, taking into account existing tools and constraints. The programme is announced to interested and potential participants. The instructors are identified and informed about the purpose, content, capacity and number of programme participants. The instructors inform the organizers of the exact content of their lecture, the teaching methods they will use, the equipment they will need, etc.

Implementation

At this stage the training programme is being implemented. To achieve an effective implementation a coordinator is needed who should:

• clarify the context and objectives of the programme,

• ensure that all existing views, expectations and needs within the programme are expressed,

• use the participants' abilities in support of the programme,

• take care of time keeping, with the flexibility to respond to interesting emerging discussions,

• periodically refer to the objectives of the programme and confirm their acceptance,

• deal with issues arising from the limitations or specificities associated with participants or teaching methods,

• ensure that the views are heard and that the interests of all participants are expressed,

• provoke, direct and close conversations, highlight key points, refer to previous points for further analysis,

• listen, but also to persuade others to listen, having flexible control over the instructor, asking him to repeat something, controlling the reactionsof the listeners, emphasizing certain points, etc.,

• find ways to overcome difficulties arising from different interests, unforeseen events, etc.

Evaluation

At the evaluation stage, which is often omitted due to a misconception, organizers and stakeholders need to know which procedures were followed, what skills were acquired, what the effectiveness of the training was and whether it was cost-effective.Likewise, trainers should evaluate the quality of the training they provide so that they can improve. Evaluation can be done in different ways, at different times and in relation to different components of a training programme. The most difficult level of evaluation is that of assessing whether the training has helped to remove or alleviate the problems it addressed. This requires the recognition of specific progress (technical or of policy), which can be attributed to training. Evaluation provides the feedback needed to continue developing and running effective training programmes. For all the above reasons evaluation is a very important step in the training mechanism.

HUNTING, SHOOTING, OUTDOOS ACTIVITY ISSUES AND THEIR CONNECTION WITH TRAINING

The degradation factors of game resources should be grouped (not ignoring the deeper causes of these degradation factors being political and social). The aforementioned problems encountered today by game resources reflect, therefore, the priority issues to be addressed in terms of training. The general nature of the problems can lead to the selection and prioritization of the training modules. However, as defined in the presentation of the training mechanism, the choice of topics is linked to the needs of the trainees. Priorities that have been set do not exclude training programmes designed to alleviate other problems, which can be very important at least locally. It is also obvious that training should also be given priority over other issues that offer avenues for sustainable use, with perhaps an important issue for our country being ecotourism.

GUIDELINES FOR IMPLEMENTING THE TRAINING MECHANISM

The training mechanism and the stages described in detail are the key prerequisites for a more effective implementation of a training programme. It is understood, of course, that there are often difficulties in carrying out each training programme. Also, particular circumstances dictate modifying part of the abovementioned stages or even adding individual actions. However, this publication is a flexible tool that can be used to organize training programmes tailored to the experience and knowledge of Greek reality as well as to local contexts.At each stage there are specific focal applicationelements which if ignored can cause unexpected delays or even divert the programme from its original purpose. A brief description of these elements will follow.

The general finding is that any training activity intended to help tackle a problem should include raising awareness and informing trainees of the functions and values of hunting. In addition, it is clear that training programmes for the prudent management of game resources must adopt an interdisciplinary approach, for both trainers and trainees, who should ideally exchange roles to a small or large extent. This will maximize the disseminationof existing experience and contribute to the development of a common language among the sciences. Please note that all stages,successively implemented, are necessary.

Of particular importance is the stage of analysis, which determines the appropriate choice of training needs, its objectives and the appropriate composition of the group of trainees. It is also emphasized that the development of partnerships between the implementing body with other

wider actors contributes to a better outcome, increases the prestige and impact of the programme and lays the foundations for future communication and cooperation between stakeholders.

Analysis

At the stage of analysis it is necessary to make a series of contacts in order to fully and accurately describe the current situation. This description should be combined with the collection of all data and information, the legislative framework and possible problems, the existence of any other relevant decisions or other management guidelines. Analyzing the problems and investigating to what extent the existing problems can be resolved through the training programme will also partially determine its content. Through the analysis and prioritization of the problems the points where the contribution of training will be crucial will be identified, but also the points that must be known and fully analyzed in order for the training programme to be effective.

That is to say, it is essentially seeking to approximate the programme's potential capacity to deal with existing problems. It is desirable, if such a possibility, that the choice of a central problem should be accompanied by an investigation of all the actors involved, either exacerbating and causing the problem, or helping to solve it, through the actions of their competence.

The aforementioned procedure will identify the Services and bodies whose members will be the target groups of the individuals to be trained. After specifying these bodies, through ongoing personal contacts, questionnaires and possible interviews, the following assessment is required:

1. of the demand for training,
2. of training needs and their analysis.

Contact with prospective trainees should take place much earlier than the conduct of a training programme. The effectiveness of contacts is enhanced by the use of specially prepared questions (or questionnaires) covering the following topics:

• Prioritization of problems in game resource management.

• How and to what extent is the body or service of the executives to be trained involved?

• What problems does the body or service itself face in trying to solve the problems?

• Which of these problems could be overcome through a training programme?

• Would they be willing to participate in such a training programme?

• On what topics would they like to be trained?

• Do they believe that they could apply the know-how and the training product in their work (if not what difficulties are likely to exist)?

• Are there other ways for the problems to be solved by their service than just training?

• What other bodies or individuals would they suggest to join the training programme?

• What do they consider to be the most appropriate and satisfying dates?

• What procedural actions are required for their service to participate seamlessly in the training programme?

At the analysis stage it is even possible to make a general reference to the title of the content of the training programme. At the same time, although it is the subject of the next stages, it is advisable to start contacts already to develop partnerships, which will facilitate the conduct of the training programme (such as classrooms, etc.). In addition, relevant information can be collected or suggested by potential trainees. The analysis phase

will lead to the determination of the appropriate composition of the group of executives to be trained as well as the assessment of training needs.

In Services and other bodies prior consultation of the training programme organizers with their heads is preferable for the participation of more than one representative on a case-by-case basis.

The training mechanism requires the operation of a specific coordination group, comprising at least the coordinator and the technical assistant.

The general description of the role of this coordination group includes:

• the possibility of coordination,

• the ability to collect and process all information (site data, problems, uses, stakeholders, identified training needs),

• thecompetence in public relations,

•theinsight into the identification of potential trainees and potential collaborations, and ways of engaging them in the training programme,

• the ability to implement planning at all stages of training,

• thevery good command of spoken and written language,

•the knowledge of both the training mechanism and the ways to manage and deal with habitat problems

Structure

All necessary partnerships must be developed at the structure stage.

Examplesinclude:

• provision of venues,

• provision of audiovisual equipment,

• the provision of means of transport and other equipment for field visits,

• ensuring other parameters for the smooth conduct of the programme (printed material, catering etc.),

• financing the publication of training programme proceedings.

Based on the training needs identified during the analysis phase and the development of the existing habitat status, the overall purpose of the training programme is defined and how it is allocated to specific purposes.

This division will specify:

• the content of the training programme,

• the titles of the modules,

• the selection of individuals to be trained (based on their training needs, their level of knowledge in the modules),

• the necessary budget,

• the required competencies of the trainers,

•the teaching process of implementing the programme and its overall structure

Not only must the specific objectives of the training be recognized in the formulation of training, but also fully described, in order to be expressed in a "measurable" form and terms, so that their degree of achievement can be assessed.For example, for the supposed goal of safe use of a shotgun the learning process of shooting and safe handling of weapons should be determined in advance as well as how many weapons or replicas should be available for the training, if the training will be digitally performed, or if there will be a descriptive reference to the method etc.The programmecoordination team, and in particular its Technical Assistance Officer, must have assessed and prioritized the knowledge and material related to the purpose and the modules, and whether they are available for

training, if there are appropriate instructor selection teams or if appropriate trainers can already be selected. Therefore, optimum combination of the desired themes and available trainers should be achieved. The purpose of the training programme is considered a key parameter of its implementation and is the basis for evaluating effectiveness. The specific objectives depend on the training needs, and basically these needs are converted into requirements that will have to be met by the programme. The goals identify what the trainees can do in their workplace and activity after completing the training programme.

For more effective contacts and collaborations, the coordination working group will be able, on the basis of the collection of information and data, to draw up an auxiliary form describing:

- the core of the training programme,
- the characteristics of the game resources with the functions, values, uses and problems it faces,
- the network of competent bodies and their responsibility and action thresholds and,
- the stage of analysis as applied, as well as the general and specific objectives of the training programme.

Planning and organization

At this stage all the organizational issues related to the event are regulated (room, materials, additional staff, organization of field visits, provision of audiovisual material, means of transport, other educational material, equipment). The selection of trainees and trainers has been completed, so

trainees are invited and informed at the same time about the content of the programme, the time, the titles of the presentations, the venue and other topics. They are contacted by letters / e-mails, telephones or direct appointments. A similar information procedure is done with the trainers, who are requested to hand in the text of their lectures. When contacting the instructors, they are provided with a special leaflet on the topic of the lecture, called Teaching Sheet. The Teaching Sheet informs the instructor of the content of the programme, the composition of the audience, the time and venue, the length of the required lecture, the full title of the presentation, the equipment availableand the general and specific purposes of the seminar. The instructor is also informed by direct meetings of what the trainees expect from the lecture. Each instructor is asked to tailor his presentation to specific key issues, such as: gamespecies or hunting systems, presenting in a holistic approach the nature of the problem along with all existing interactions, suggesting ways to address, identifying any weaknesses in the implementation of the proposed solutions. He also needs to be informed about the content and the sequence of other presentations.

The coordinating team must have completed organizing the work in groups. In the training programme in general, it is important to aim at group work. The composition of the teams must be appropriate in order to achieve an interdisciplinary approach. Dividing into groups is the responsibility of the coordinator, but provision should be made for a team leader to be assigned to each group. The scope of the work of the teams needs to lead to achievable results, which should be completed within the training programme. The existence of basic cognitive gaps due to different specialties should be covered either by individual lectures or by the distribution of special printed material. The role of the coordinator is

also to create groups with a similar cognitive level of knowledge, where interdisciplinary and technically sound "language" can be articulated. It is advisable, if there are trainees within the group with specific cognitive background, to transmit this through short presentations.

Implementation

The smooth execution of the previous steps, namely analysis, structure and organization, transforms the implementation into simple application of well-designed movements. On the contrary, any omissions from the previous stages will appear gigantic and likely to affect the entire execution of the programme. The thematic organization of the lectures, the provision of discussion time after the end of each lecture, but also at the end of each day and at the end of the implementation, is a necessary process. Another useful element is the switching of the same individuals in the role of trainer and trainee. Working in groups also helps to achieve comprehensive approach of the topics, as well as the submission of proposals. Each group analyzes the topic it processed. Organizers should provide for the ability of the working groups' findings to be processed in print to be distributed at least on the last day of the event. At this stage, of course, many technical issues have to be solved, such as the possibility of making copies, the use of digital training media, good equipment, seamless field operations, breaks, cleanliness and functionality, time keeping, etc. In some cases, where the venue is isolated, the need to resolve issues of accommodation, nutrition, communication, etc. arises. In cases where the participants do not know each other at all, there should be an appropriate communication handling achieved to bring them in contact so that the atmosphere between them is friendly, they can feel

comfortable and can work better with their colleagues. Icebreaking systems are indicated in irrelevant groups.

Evaluation

It is immediately apparent that the evaluation stage interprets the degree of effectiveness of the training programme. There are two evaluation actions:

• Daily evaluation (after the end of each day's work) and

• Overall evaluation (after the end of the process).

By using questionnaires, but also by taking into account any comments and observations made by trainers and trainees, the degree of fulfillment of the general and specific objectives of the training is assessed.

The key points considered in the evaluation are:

• The effectiveness of the programme.

• The degree of satisfaction of the trainees with the topics, methods of teaching and presentation, the lecturers, the printed materials, the teamwork, the field visit, the whole organization of the program, the possibility of developing dialogue and discussion, the behavior and action of the coordinators.

• Identifying the positive impact of the programme on the subject of the trainees' work, as well as the tools that establish this positive impact (printed material, technical knowledge, experience, new information and practices, opportunities for developing new partnerships, etc.).

The evaluation will highlight the importance of the stage of analysis for the successful design of the training programme. The impact of the programme can also be assessed by an additional evaluation action, in the form of a questionnaire or by direct meetings, after a period of six months. At the same time, monitoring the activities and decisions of the bodies and services whose representatives attended the programme will help to identify a positive continuity.

Distance learning

The course can be offered through the distance learning method and includes the following: The trainees receive and study at home the educational material (printed, audiovisual and, sometimes, in electronic form), which is compatible with the requirements of distance learning.

Trainees who are trained through distance learning are much more dependent on educational material than students of a traditional form of education because of the limited communication they have with the teacher and with their fellow students. The educational material therefore 'teaches' the students, so it needs to be designed in such a way as to compensate as much as possible for the absence of educational communication and, in general, to perform the various teaching functions performed in traditional education. Therefore, in order for the educational material to meet these needs, it must be created in such a way (and contain those appropriate elements) that it:

- Guides the student in his/her study.
- Promotes the student's important interaction for learning with the learning material (with exercises and assignments). Explains difficult points and concepts.
- Evaluates and informs the student of her/her progress.
- Encourages the student to continue.
- Allows the student to freely choose the place and time as well as the pace of his/her study.

For these reasons, there are training organizations that have been specialized in this form of training that has produced special teaching material for all the modules tailored to the requirements of distance education. It should be possible for each module to estimate how much study the trainee needsin order to be trained. Respectively, the page numbers of the manuals are indicative and may vary from section to section, depending on their content and requirements. To enable trainees to meet these study requirements, they need to properly organize their time and plan their actions. The CEA Training Center being set up does not foresee the use of distance education at this time, although there will be a great deal of involvement in digital education (as stated elsewhere).

Teaching language: Greek/Bulgarian/English

The courses, both theoretical and practical education, will take place in Greek, in the Training Center in the area of Ochiro, in K. Nevrokopi. For Bulgaria, the theoretical training courses will take place in the Training Center created by the implementation process of the CEA project in the GotseDelchev area of Bulgaria. This is a space that has been properly configured at the offices of the Sokol Hunting and Fishing Association, and has been properly equipped with digital material.

At the same time, in the framework of the project all training material will be translated into English, which is the official implementation language of the Interreg project. This material will be posted on the website in English as well to make it available.

Learning outcomes: -

It analyzes the purpose and principles of designing the interaction

- Analyzes the procedure of a human-centered planning.

- Understands the tools needed for interaction planning.

- Plans the interaction for ubiquitous computing devices.

- It identifies users' needs for interacting with devices.

- Understands the basic principles of user collaboration.

- Develops software originals.

- Analyzes case studies in education and environmental knowledge applications.

Subjects of modules: - Interaction and device design - Large-scale systemsperformance analysis - Case study and implementation

Prerequisites: There are no prerequisites
Evaluation: Evaluation will be done at the end of the seminar, by filling in a special form. The Teacher-Trainer will also be evaluated.

Use of new digital tools

The approved project“CertifiedEnvironmentalActors – CEA”providesbeyond the theoretical training also learning by using new digital education tools. This training will take place in the Training Center classroom using new technologies of direct and interactive participation. Different scenarios have been created for this purpose in order to better engage trainees. The scenarios are described in detail in the following chapters:

Scenario 1. Game identification

One very important skill that a hunter should possess and in which he can be trained by this particular application is game identification.The hunter should be able, when being in a hunting area, to immediately identify the species of animal or bird in its field of vision and assess whether it is a game species, whether it is not permitted to be hunted, or even if it is a rare species. Of the 442 bird species and 116 mammal species in the country, the hunter should be able to identify the few game species with certainty, excluding with certainty the rest.

The usual way of training hunters in game identification involved the static study of a series of drawings of species in leaflets or books. The following illustrations show representations of two game species: the Eurasian wigeon and the garganey.

Σφυριχτάρι-Anas penelope

Σαρσέλα-Anas querquedula

It is obvious that the above illustrations are an idealized situation, since the species appear immobile, in profile and isolated from the naturalenvironment. It is obvious that there is no chance that the hunter is going to see thesebirds in exactly this form in the wild.

At the same time the hunter should be able to identify each species not only by its image but also by a number of other characteristics. These include:

- The sounds they produce
- Their behavior
- Their habitat
- Their movements

The sound that different species make is sometimes characteristic. The hunter should be able to identify specific species from their sounds in

order to be able to quickly assess whether there are game species in the area, even if they have not been detected visually.

The behavior of some species is also characteristic, which helps to identify them. Other species live in small groups while others alone. As a result this knowledge can help the hunter identify their species.

The environment is also a characteristic feature of some species, especially birdswhich can bearboreal, terrestrial, aquaticorshorebirds.The hunter should also be aware of the species he is going to encounter in the hunting area without confusing them with species found elsewhere in the country.

Finally, the way in which one species moves plays an important role in identifying it. For example, the way the pheasant takes off is so characteristic that the hunter will be able to recognize it by its movement characteristics. In addition, knowledge of the way a species moves is particularly useful for the way the hunter is going to shoot. Another characteristic species is the Eurasian skylark, which runs easily on the ground and can brake thanks to its long back nails but also flies very high and rises vertically while leaving a distinctive chatter.

The application will place particular emphasis on identifying species that are easy to be confused by the hunter, especially if there is a possibility that the hunter identifies incorrectly an endangered species and considering it a game species he might shoot it.

Suchcasesare:

- the Common quail and theCorncrake
- the female Common pheasant and theGrey partridge
- the Rock doveand the Stock dove
- the Eurasian skylark and the Crested lark
- the Tufted duck and the Ferruginous duck
- theGreater White-fronted goose and the Lesser White fronted goose

The latter of the listed species resemble the former but are either non-huntable or constitute a globally threatened species. Especially the Lesser

White fronted goose should not be confused with the Greater White-fronted goose, because the whole European population of Lesser White fronted geese (Ansererythropus), which consists of only 30-40 pairs, overwinters in northern Greece.

The application uses virtual reality equipment in order to virtually transport the user to a hunting ground. Having panoramic 360 degree images of hunting grounds in the cross-border region of Greece-Bulgaria and combining them in the virtual reality projection system will give the prospective hunter the sense of being in a real hunting ground. This realistic sense will be achieved through high resolution panoramic images of 18,000 x 9,000 pixels, overcoming the specifications of the proclamation, and the depiction of high dynamic range imaging.

The trainees will be immersed in this environment, in the sense that their senses of sight and hearing will record signals that closely resemble those recorded if they were in a real hunting ground. The possibility to depict real hunting grounds of the region greatly increases the sense of reality.

In this virtual hunting ground, moving 3D models of specific animal or bird species will be instantly displayed that the user will be asked to identify. The 3D models will be of high resolution consisting of over 15,000 polygons, exceeding the specifications of the proclamation.Their morphological features, even their feathers or fur, will be reproduced realistically during the design phase. Models will incorporate realistic skeleton elements, which is called rigging in the technique of 3D modeling, so that (rigged) models can obtain realistickinesiological features. Through 3Danimation techniques there will be a realistic representation of its movement which through match-moving techniques will be integrated into the natural environment, as depicted in the panoramic illustrations. Finally, in order the trainee’s sense of immersion to be completed, the application while simultaneously presenting the realistically moving 3D model of the species will reproduce the sounds of the environment and the particular species allowing the user to use his hearing in the identification process. The sound will be omnidirectional increasing the sense of reality.

Examples of 3D models of maleAnasplatyrhynchos

After briefly seeing the species to be identified, the user will then have to select from a multiple-choice tab thename of the species he/she believes has appeared in the virtual reality system. After selecting it, the application will point to the correct answer, giving special attention to the particular features of the species that differentiate it from the other options that appeared on the screen.

A total of 14 models will be created as part of the application, exceeding the specifications of the proclamation. The final selection of the species will be made with the approval of the contracting authority.

The application will run in a windows environment, but will allow partial operation in an internet environment.

Scenario 2. Skill development

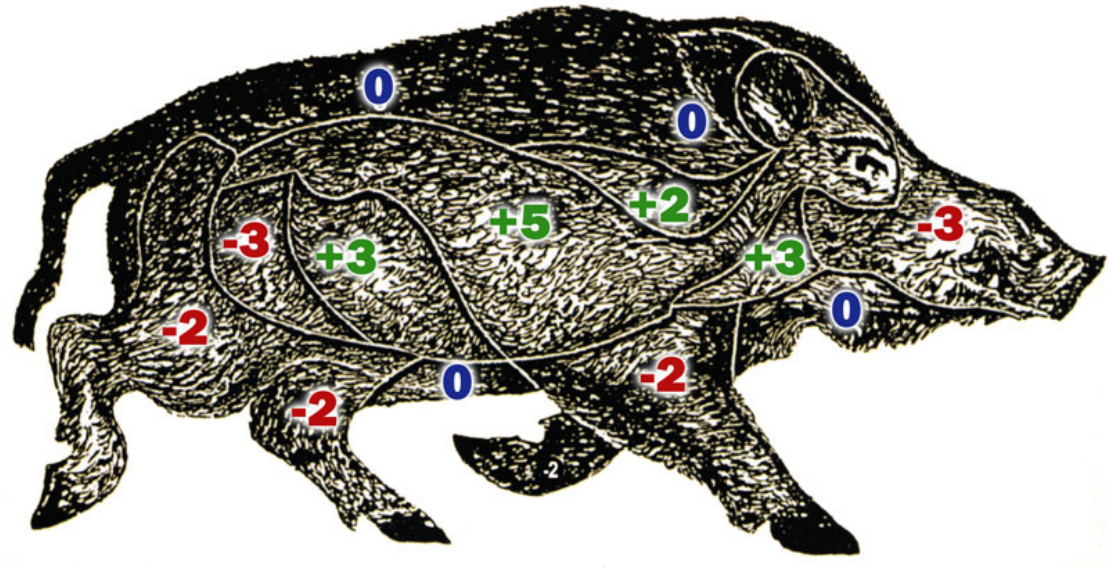
Through this application the hunter will be able to be trained so that he can correctly select the parameters of his shooting.In the virtual reality system of the project there will appear panoramic 360 degree images of real hunting grounds of the cross-border region of Greece-Bulgaria which is the implementation area of the specific action. A game species will appear in this area.In the following example we will analyze the case of the wild boar, first as an individual and then as a herd member.

The wild boar is the largest huntable mammal, according to Greek law. For this reason it is particularly valuable as a game species and hunters must treat it with particular respect. The legislation also protects wild boars by imposing strict restrictions on their "harvest", allowing a finite number per hunter group.

It should also be noted that wild boars are highly resistant animals and with the ammunition permitted to be used, they are often difficult to be harvested.

For these reasons it is very important for hunters to know the parts of the body they need to target in order for their shot to be successful. Many times hunters shoot the wild boar in parts that simply injure it, but most of the time the trauma will prove fatal and the wild boar will die from infection or related causes without the hunters being able to harvest their game.

According to the present ways of training hunters the use of the following diagram is very common:



Positive numbers correspond to areas in the animal's anatomy where the shot leads to its harvest, zero represents areas where the animal can be shot and continue undisturbed, while areas with a negative number indicate areas where the animal will be hit, it will be able though to escape but soon enough it will end up in its wounds and so the hunters will not have harvested it but this precious gift of nature will have been wasted.

It is necessary to be understood by everyone, but especially by those who are used to shooting large furred game at distances greater than 25 m, that in order an animal to be defeated it is not enough just to be hit by a projectile but to be hit at a vital point with a projectile of sufficient energy to avoid unnecessary injuries that will most likely result in the loss of the animal and its painful death at a remote location.

The proposed application provides a more realistic and at the same time a more effective way to train hunters on the right shooting point choice. The user will first select the type of ammunition he is going to use.He will be then virtually transferred through the application and the virtual reality space to a hunting ground in the cross-border region of Greece-Bulgaria. After a while, a moving 3D model of a wild boar will appear in front of him. The user will have to select the point to shoot in a very short period of time. The application will evaluate the user's shot and inform him if he has achieved to hit any vital organ in such a way as toharvest the game, if he has injured the animalin such a way that while it is a matter of time for it to die it will be able to escape the hunter or if the

animal has been hit at a point where it would escape and survive without any problem. The application will inform the user about the result of his shot by evaluating the shot and its effect through a multimedia presentation.

Using the application the user will not be asked to evaluate a static image in a 90-degree profile, such as the layout of the previous page, but a realistic animated 3dmodel moving at a fast pace with the typical gallop of a wild boar.Utilizing the ability of a simultaneous image projection in the projectors of virtual reality equipment will create a highly effective learning environment.

Training in such conditions is a much more useful experiential experience, which can be very useful in the field.

Of course, the necessary theoretical training will precede the beginning of implementation. In the case of the wild boar, the user will be trained in the anatomy of the animal as well as its general external features.

To improve the training of hunters, 4 high-resolution 3D models of game species will be developed, consisting of over 15,000 polygons, exceeding the specifications of the proclamation. The models will incorporate realistic rigged elements so that they can realistically visualize their movement. At the same time they will incorporate realistic anatomical elements so that the effect of the trainee's shot they can be visualized and evaluated.

Our proposal for animal models to be modeled and included in the application includes the following species:

- Wild boar–Susscrofa
- Red deer–Cervuselaphus (its hunting is permitted in Bulgaria and in Controlled Hunting Areas in Greece).
- European hare–Lepuseuropaeus
- Mallard –Anasplatyrhynchos

3 different models will be created for the wild boar, one corresponding to an adult male, one corresponding to a female animal and one corresponding to a young animal with characteristic longitudinal light streaks, overcoming the specification of the proclamation. This choice is dictated by the importance that must be given to the selection of the animal that the hunter must target, since mature females are particularly

valuable for breeding, while hunting of young animals with characteristic streaks is prohibited.

The above proposal is available to the contracting authority for approval or modification, in accordance with its specific knowledge and experience.

The application will be used with an IR laser demonstration tool that will enable features to be tracked and will ensure the immediate and accurate recording and evaluation of user’s shot. The shot evaluation and related information material will be displayed in multimedia form immediately after the shot.

The application will be developed as a standalone application for the windows operating system, but will also be available to some extent in an internet environment, exceeding the specifications of the proclamation.