



Long-term Strategy for involvement of young people into activities for nature protection



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About the project

The "For Everyone Saved a Tree (FOREST)" project brings together non-governmental and scientific organizations from Bulgaria and Serbia into the cause of engaging young people in forest conservation activities. The project is funded by the Interreg-IPA Bulgaria-Serbia Cross-Border Cooperation Program (http://www.ipacbc-bgrs.eu/en) and has a duration of 15 months. The leading partner in the project is the Bulgarian non-governmental organization Youth Movement for Development of Rural Areas in Bulgaria (www.ymdrab.eu), while the other partners are the Society Innovation Center, Nis (www.niit.rs) and the Forest Research Institute, Bulgarian Academy of Sciences. (https://fri.bas.bg/).

Goals and activities of the "FOREST" project. The project is based on the concept of involving youth volunteer in solving problems related to the conservation of forest habitats in the cross-border region. With the methodological support of experts from the Forest Research Institute, BAS and the joint participation of young people from the municipalities of Botevgrad and Nis. During the implementation of the project a series of activities were implemented aimed at enhancing the knowledge and skills of young people regarding the assessment of the health status of





forests, methods of conservation and restoring forest habitats in poor condition and promoting such initiatives among the public.

The project partners

Project Partners

"Youth Movement for Development of Rural Areas in Bulgaria" (YMDRAB) is a leading project partner and non-profit association with headquarters in Botevgrad. It was officially registered in 2009. Main objectives of the organization are to assist and encourage free initiative, generating of new ideas, adoption and exchange of information and experience with similar organizations, interaction with government and international institutions in science, culture, education, sport, tourism, environment and for social development of youth community in rural areas in Bulgaria. The main areas of activities are protecting the rights of young people, support the social development of youth, development and implementation of strategies, programs and projects for rural development, collection, processing and analyzing data on the status and perspective development of rural areas, informational consulting activity among youth on law-making in Bulgaria and clarifying the rights and obligations of citizens, support of young talents and disadvantaged youth, advocacy of youth and others.



YMDRAB as a Lead Partner is responsible for: overall project management and coordination; communication with the Joint Program Secretariat; communication and cooperation between partners; risk management; internal monitoring; reporting on project implementation, etc. In addition, YMDRAB was the responsible partner for the implementation and reporting of activities 2, 4, 5 and 7.

NIIT Society Innovation Center is a voluntary, non-governmental and non-profit organization established in 2007 in Niš, Southern Serbia.

The main goal of NIIT is to support society development, through the innovative tools and means. Theatre of the association work and interest are not only the Republic of Serbia, but also countries from the Balkan region, as well as from whole Europe. Since its foundation, NIIT and its team have been committed to a specific mission and vision for its implementation. One of the most important parts of the mission is contribution to civil society improvement through citizens informing and education about democracy and public institutions. Also, NIIT supports groups, associations and individuals who work on civil society ideas spreading. A tool for democratization strengthening is a citizen's incitement for more active and wider involvement in the decisionmaking process. NIIT has been involved in the fight against corruption, lack of transparency and other societal challenges. Within the The project №CB007.2.32.170 "For everyone saved a tree (FOREST)" is cofunded by the EU through the Interreg-IPA CBC Bulgaria-Serbia Program



framework of the "FOREST" project and as a project partner, NIIT was responsible for the implementation and reporting of Activities: 1, 3 and 6. The Organization provided daily technical management and implementation of these individual work packages. NIIT also assisted other partners in the organization and implementation of all project activities.

The Forest Research Institute, Bulgarian Academy of Sciences (FRI, BAS) is the second project partner on the Bulgarian side. The mission of the FRI is to carry out fundamental and scientific and applied investigations of forest ecosystems, which plays a key role in the environment, both in its entity and inviolability and in conditions of anthropogenic impact, including mitigation of climate change consequences. The Forest Research Institute makes the theoretical and scientific basis for practical decisions with regard to forestry systems for management, forest genetic resources, protection of forests, erosion and flood control, as well as support of policies and legislation in the field of forest and nature conservation. Based on the relationship between traditions and innovations in forestry and biological sciences, as well as on priorities of the Bulgarian Academy of Sciences, specific research activities of the Forest Research Institute include:





- studies on structure, functioning and adaptation of forest ecosystems to climate change and other natural and anthropogenic impacts;
- development of programs for ecological management and utilization of forests and their products;
- study on biological resources and protection of forest flora and fauna; Accumulated knowledge in different units support the development of measures and approaches of ecological and sustainable management of forests to minimize the negative ecological consequences.



I. INTRODUCTION

More and more young people around the world want a change in governance and demand respect for their fundamental freedoms and rights, as well as better living conditions for them and their communities, opportunities to learn, work and to participate in decisions that affect their future. More than ever, it is time to increase investment in research, policies and programs to enhance their competencies, through which young people can prosper, gain a sense of hope and community, and engage as responsible social partners and innovators.

The development of a Long-Term Strategy for Involvement of Young People into activities for nature protection under the Project "For everyone saved a tree (FOREST)", co-financed by the EU under the Interreg-IPA CBC Bulgaria – Serbia Program 2014-2020, is in accordance with the UNESCO Operational Strategy for Youth 2014-2021, which advocates the need to study the feasibility and consequences of youth inclusion as a new global priority and to determine the best modality for implementation in strategies for its training, education and growth. Through them, the youth must be directed both as beneficiaries and as future leaders towards achieving sustainable development (Axis 2, 16).



The development of this Strategy is based on an interdisciplinary approach, including various experts (scientists on sustainable use of forest and environmental resources and biodiversity conservation, teachers, forest officials, editors, etc.), state and municipal structures and non-governmental organizations from the Republic of Bulgaria and the Republic of Serbia.

The strategy identifies environmental protection as a key priority in the education of young people and this will help them understand and appreciate the natural resources of both countries and how to preserve these resources for future generations. The result will be the development of critical thinking skills and the knowledge they need to understand the complexity of environmental issues. A guiding principle of environmental education is to teach young people how to think, not what to think, about the natural environment. This will encourage them to take personal responsibility for their relationship with the environment and will build skills for meaningful participation in debates. One of the main goals of the strategy is to develop a better mechanism for inclusion of the young people in the environmental initiatives. The forest ecosystems provide ideal conditions for such inclusion and furthermore the forest ecosystem can help the young people understand the complexity of sustainable development. One of the



main conclusions of the implementation of the "FOREST" project is that the study of forests in the Republic of Bulgaria and the Republic of Serbia can help present the complicity of the problems faced by vulnerable forest ecosystems. The activities implemented during the project "For everyone saved a tree" show that through outdoor working sessions the young people can gain better knowledge and understanding of how the forest ecosystem works and how forest products are used. This knowledge can then be extended to include the global environmental challenges. The training can take place indoors or outdoors but the priority of the strategy is that any training for forest ecosystems includes some outdoor interaction with real trees, flowers, herbs, mushrooms, water and animals. Furthermore, forest education is related to the use of wood products and elements of forest ecosystems, which is a learning resource for other disciplines, such as mathematics, art, science, physical education or even for emotional and social development.

II. CONCEPTUAL FRAMEWORK FOR DEVELOPMENT OF LONG-TERM CARE

The definition of a conceptual framework for the development of a Long-Term Strategy for Involvement of Young People in Nature Ptotection Activities under the Project "For everyone saved a tree" is dictated by the need to use it as an analytical tool that can organize



deductive and empirical research in different scales and in different contexts. The aim of the project participants is to focus and concretize the conceptual framework to create a clear common vision for the continuation and development of each of the project activities in the future and to achieve significant results in involving more young people in their implementation.

The beneficial effects of living contact of young people with the natural environment are well described in the Research of Keniger, L., et al. (2013). In their study are summarized the results of 103 selected international literature sources about the benefits to the young people when they interact with the nature. Based on these researches Keniger, L., et al. (2013) draws important conclusions that:

- Studying the sophisticated instruments available in ecology to measure the characteristics of the biological component of the landscape, such as number of species, plant structure and community composition, could be a good base for involvement of young people in environmental activity.
- There are numerous evidences to suggest that natural conditions can have many positive effects to the young people education.



- Interactions with nature can have a positive effect on children's behavior, academic achievement and social skills and it could be more strongly incorporated in school programs.
- The interactions with the environment can bring a number of psychological well-being, cognitive, physiological, social and spiritual benefits to the young people. The access to green space and natural areas is an important mechanism to facilitate activities that are beneficial to human well-being.

According Dodev et al. (2020) understanding the benefits of interacting with forest is important for maintaining and improving human well-being and should be clearly identified and systematized as a basis for their inclusion into the forest policies and management at all levels. The main benefits of interacting with forest could be summarized as follow:

- Physiological Positive effect on human physical function and/or physical health (Dodev et al., 2020).
- Psychological Positive effect on human mental processes and emotions (Dodev et al., 2020).
- Cognitive Positive effect on human cognitive ability or functions as well as provision of educational opportunities in an outdoor and healthy environment (Dodev et al., 2020).





- Social Positive effect on social skills, interactions, behaviors and lifestyle (Dodev et al., 2020).
- Spiritual Positive effect on cultural and religious pursuits or spiritual well-being (Dodev et al., 2020).
- Economic Positive effect on local economy and employment, especially in smaller and remote mountain areas (Dodev et al., 2020).

Based on the above-mentioned conclusions and the experience gained during the implementation of the "FOREST" project, we accepted that the conceptual frameworks (theoretical frameworks) are a kind of intermediate theory. The conceptual framework of the Strategy outlines the possible directions of action (approach) and seeks to unite all aspects of the involvement of young people in activities related to environmental protection, as well as - to answer the questions, to which the Strategy is aimed, what is its goal, who are the parties in the process of realization of the goal, what is the methodology and what are the possibilities for its upgrading in the future.

The target group of the strategy are the young people of the Republic of Bulgaria and the Republic of Serbia - children of preschool age, as well as children in school age and adolescence. The division of young people into these groups is the result of many years of research on the impact The project NeCB007.2.32.170 "For everyone saved a tree (FOREST)" is cofunded by the EU through the Interreg-IPA CBC Bulgaria—Serbia Program



of the environment on human development. Although there is no unifying theory (Lerner 2002) for development in a favorable environment, the strategy relies on the proven positive effects of the natural environment and outdoor activities on all three age groups. This is a direct result of the interaction between the physical - cognitive development of the individual and the environment. According to Ewert et al., (2011), there is a strong connection between the environmental experience gained in the childhood and the strong emotional closeness to the natural environment in older age of the individual. This conclusion is also supported by the work of Franz X. B. (2010). His research proved that outdoor environmental education causes favorable changes in individual behavior.

Despite the positive effects of the outdoor activities on the young people, a long-term decline in visits to natural areas by young people has been noticed. This fact is explained in various international studies with the great amount of time that the young people spend watching movies, playing video games, using the Internet. This is a huge detriment to their positive development. Because of that, this strategy researches the possibility a popular High-Tec instruments to be used as a mechanism for better involvement of the young people in environmental initiatives. The environmental learning in the nature can



support the creation of compensatory mechanisms for overcoming crises during the stages of young people psychosocial development. During the implementation of the "FOREST" project was found that the participation in activities for the management and protection of forest ecosystems can complement this process.



Fig. 1 Workshop with young participants in the "FOREST" project – Recognizing tree and shrub species.

The use of forests for outdoor initiatives allows young people to get acquainted with the components and elements of the ecosystems and the factors that influence their development. Furthermore, the



children's contact with the forest and its microclimatic characteristics, clean air, aesthetic perceptions and emotional charge has a beneficial effect on their health and physical development. The geographical position and the natural characteristics of Bulgaria and Serbia together with high conservation status of the forest ecosystems and the degree of their use are the prerequisites for better ecological education of the adolescents.

The aim of the Strategy is defined by the results obtained in each of the project activities and is to provide a common vision for training, education and inclusion of young people in environmental protection activities and also to achieve lasting knowledge, skills and worldview in forest protection. It is very important that this strategy can be used as an instrument that can increase their self-confidence and motivation to take care of the environment. This vision can be achieved by a complex and innovative approach whose final goal is to introduce the young people with the natural characteristics of the environment and the human impact on it by using games, entertainment, training, work, reward and more.

Responsible stakeholders

The whole society is responsible for the education and upbringing of the young generation. But to enhance the good results from the The project NoCBOO7.2.32.170 "For everyone saved a tree (FOREST)" is cofunded by the EU through the Interreg-IPA CBC Bulgaria—Serbia Program



implementation of the project "For everyone saved a tree", it is necessary to clearly define the parties in the process of the implementation of the strategy and their commitments.

The parties in the process of realization of the goal of the Strategy are mainly divided into two groups - young people (trainees) and structures or people engaged in their training by involving them in nature protection activities (trainers). To improve the outcomes of the Strategy, the trainees should be divided in separate subgroups. Such a division makes it possible to correctly determine the specifics of the goals, approaches, methods, tools for each subgroup of students. Through the differentiation of the trainees, a clear delineation of the commitments and responsibilities for achieving the goals of the Strategy can be achieved.

The trainees, who are the subject of the Strategy, include three of the age groups defined by the stage of the individual development of the young people, which is in accordance with the theory of Eric Erickson. This theory is based on the epigenetic principle, according to which a person goes through genetically predetermined stages in his psychosocial development and which are specific to each age. Each subsequent stage is based on the results of the development in the



previous stages. The three age groups that are included as trainees in the process of achieving the goal of the Strategy are as follows:

The group of children aged from 3 to 6 years. This stage is important for the later development of a personality. At this age the child begins to assert itself and create plans in their games, which builds psychosocial positive qualities for initiative, purpose, courage, curiosity, creativity. Experiencing failure at this stage can lead to indecision, dependence on others and guilt. The inclusion of children at this age in excursions and games in the nature will increase the opportunities for expanding the range of their personal initiative in the creative interpretation of new entertainment. Getting acquainted with the diverse and unusual for their daily life conditions in the forest will stimulate curiosity and a sense of accomplishment and overcoming difficulties. Although as a main relation for young people in this group is defined the family, a properly planned activity with suitable duration, entering the nature can create conditions for a smooth transition to the next stage of psychosocial development of the individual - entering the school.



- The group of young people at school age (from 7 to 12 years). During this stage, the psychosocial crisis takes place in a new environment - the school. At this age, young people learn to work and this is the preparation for successfully solving their future social tasks. Through the knowledge and development of diligence, the psychosocial positive qualities of self-confidence and striving for success are built. The failures during this stage can lead to loss of desire to learn, inability to realize and sense of guilt. The inclusion of young people in activities for environmental protection fully coincides with the priorities for building at this stage the positive personal qualities. The main goal for this age group, when planning activities, should be the work in the forest that will provide also knowledge of forest ecosystems and the direct and indirect positive or negative impact of forest exploitation. The inclusion of young people in environmental protection activities has an additional positive effect on overcoming the psychosocial crisis of the school through diversification with outdoor activities, which will reduce the effect of conflicts in the school environment.
- The group of young people in adolescence (from 13 to 20 years).

This stage is the most important in the development of the The project №CB007.2.32.170 "For everyone saved a tree (FOREST)" is cofunded by the EU through the Interreg-IPA CBC Bulgaria—Serbia Program



personality. Through it, adolescents synthesize their experience and intensively search for people and ideas in order to form their identity. This is the basis for building positive psychosocial values. In the second half of this stage, the adolescent begins to make decisions about their future professional activity (professional identity). Unlike the previous group, the emphasis in this one should be the development of the cognitive ability (cognition) of the individual and in the background the building of diligence. At this age the participation in environmental protection activities can be used as an instrument that will help the young people understand the role of science in their lives and its importance for the preservation and improvement of the environment. Because of this, the scientific community should be included in environmental activities together with young people from this age group. This will deepen the cognitive process and it can motivate young people to choose science as their profession and to take care of nature. The realization of the cognitive process in nature and the inclusion of young people in activities with labor can support the process of formation of their identity. By increasing the environmental experience and expanding the circle of people and ideas, the development of



personal disabilities such as feelings of meaninglessness, futility, uselessness, bigotry will be limited.

The trainers, as a party in the process of realization of the Strategy, include a wide range of state, municipal, youth and non-governmental structures and organizations, business, volunteers, etc., united by the principle of partnership. The possible trainers do not have to be strictly defined, first due to the great variety of possible participants in the process of implementation of activities for inclusion of young people in environmental protection, and second, due to the open end of the strategy, which can be constantly improved.

The organization and management of the activities for the inclusion of young people in the protection of the environment and their acquaintance with the characteristics of the forest ecosystems can be undertaken by anyone who has an understanding of the learning opportunities provided by the environment and forests ecosystems. One of the main results of the implementation of the project "For every one safe a tree" is the conclusion that introducing young people to the characteristics of the forest and its environmental problems trough outdoor activities, unlike the school, offers a number of opportunities in different contexts, from one-time experience to longer-term programs.



Methodology

The challenge for the trainers is the realization of the great variety of functions of the educational work with the young people: intellectual-building, communicative-inclusive, ecological-orienting, organizational-socializing, emotional-regulating, social-adapting, ecological-guiding, and others. Environmental education and building an environmental culture are a complex and long process. Concrete results are observed after a few years and this requires the training to continue before and during the entire educational process. For this reason, the Strategy advocates the use of all specific methods suitable to different age groups, such as: lecture in nature, case study, visualization, discussion, brainstorming, working group, problem solving, role-playing and simulation games and outdoor activities.

The main advantage of outdoor learning activities and the interaction with the nature is the fact that an abstract information is transmitted in a concrete and direct way. In this way, a better environmental engagement of young people is achieved and moreover, this rises the opportunities for understanding the information and drawing conclusions on a personal level.

The Strategy aims to create a clear common vision for the sustainability of the "FOREST" project activities in the future and to involve more The project NeCB007.2.32.170 "For everyone saved a tree (FOREST)" is cofunded by the EU through the Interreg-IPA CBC Bulgaria—Serbia Program



young people in their implementation. The Strategy takes in consideration the results obtained during the implementation of the project activities but it is also open for new environmental activities that can be developed by different stakeholders. The inclusion of young volunteers from the cross-border region is a key feature of the strategy. The strategy has been developed similarly to other strategies for environmental protection and biodiversity and in accordance with the Common Strategic Framework in the environment sector. It is written in an acceptable language for young people and non-professionals who would be interested in dealing with environmental conservation issues. The strategy is based on the implementation of the activities and the results of the project "For everyone saved a tree", as well as on the experience in similar projects and activities. To strengthen the positive effects of this strategy, during the development stage a draft version of the strategy was presented and discussed with young people from both countries involved in the "FOREST" project and their feedback was taken into consideration. The final version of the strategy will be officially presented during the final international conference "Involving young people in environmental activities - local examples and lessons learned".



III. EUROPEAN AND NATIONAL CONTEXT

The project "For everyone saved a tree" corresponds to the main goal of the National Research Strategy in the Republic of Bulgaria 2017-2030 in the part "increasing public confidence in science, retaining and attracting young and leading scientists in Bulgaria." Through the participation of young people in the project, they will understand the role of science in their lives and its importance for preserving and improving the environment. The participation of young people in environmental activities will motivate them to choose science as their profession. To stay in their country and take care of nature. The "FOREST" project provides a partnership between representatives of the two scientific communities of Bulgaria and Serbia, as well as between scientific institutions and non-governmental organizations and youth communities on both sides. Because of that, the project meets one of the guiding principles of the National Strategy - the principle of partnership. The strategy states: "... it is of particular importance that the institutions are not only responsible for implementing this strategy, but also involve business, industry and social organizations, civil society structures and, most importantly, the scientific community."



Development of the forest in Europe

During the development of the human population in Europe the natural environment has undergone significant, mainly negative, changes to varying degrees and quality in different geographical regions. These changes and their specifics are key to the development of strategies for sustainable maintenance of ecosystems, as well as for building ecological culture and human behavior among the young people. The history of forest change on the European continent and the impact of the human population during the different stages of its development in different regions are indicative of the scale and direction of human impact on the natural environment. Taking into account this specificity makes it possible to correctly identify the causes and develop the right solutions for the use of forest ecosystems, as well as to implement the best achievements in the planning, financing, organization and implementation of activities to involve young people in environmental protection and building an ecological culture.

What the different continents, countries, territories have in common is the past, present and future state of the organismic world. Everywhere it has the same characteristics of the direction in its development - maximum utilization of the potential of the territory and constant improvement of the components and elements of the ecosystems. Their



evolution is vital to human survival. Millions of years of natural evolutionary processes in the past have provided the planet's vast genetic fund and the richness of vital bio-resources.

The natural development of every terrestrial ecosystem is to reach a forest ecosystem in its final stage of development. In this stage, the absorption of solar energy is most complete and the cycle of substances and the flow of energy lead to the largest accumulation of biomass per unit area. About 90% of all land biodiversity is concentrated in forests. Only limiting natural factors, such as geographical features and climate can delay the development of ecosystems to reach the forest. Due to favorable conditions, 10,000 years ago, about 80-90% of the territory of Europe was covered with dense centuries-old forests.

During the time, the change in forest cover has taken place at different rates in the different parts of Europe. The first significant negative impact of the continent's forest cover began with the development of ancient civilizations in the Mediterranean and in the Baltic Sea region during the expansion of the Vikings. But for the current state of the forests the main role is played by the agrarian and industrial revolutions, which due to their earlier implementation in Western Europe, cause deforestation in these territories. Because of that, nowadays, the territorial coverage of forest ecosystems in relation to the area of the *The project Nochoology 23.2.170 "For everyone saved a tree (FOREST)" is co-*

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countries is very limited in the western part of the continent, for example, in Ireland - 6%; the United Kingdom and the Netherlands - 11%; Denmark - 12%; Belgium - 22%; France - 25%. While in Central and Eastern Europe, with the exception of Greece, virgin and untouched forests could be seen until the twentieth century. This has predetermined the earlier reaction of western countries to the protection of forest ecosystems and the strong advocacy of ecological education among young people and the building of ecological culture in them. The result is the adoption of such environmental policies by other European countries, which lead to the constant increase of forests in Europe in recent years.

These positive developments are noticed by the findings in the Report of the Committee on Agriculture and Rural Development of 11.09.2020 on the "European Forest Strategy - Perspectives" presented in front of the European Parliament on 8 October 2020. Some of the most important conclusions in the report are:

- EU forest resources have been increasing in terms of forest cover and volume in recent decades;
- most of the forest management activities are aimed at increasing their conservation status and increasing biodiversity;





- EU forest owners and managers have a long tradition and experience in managing multifunctional forests;
- The EU forestry already operates at the highest standards of sustainability.

The report is comprehensive on all aspects of sustainable and active forest management, including forest-related economic sectors, energy policy, research and innovation, data using satellite services, but the European Parliament's motions for resolutions lack a single an important initiative to build environmental culture and awareness in the rest of society, which is not involved in the management and development of forestry. This part of the society is incomparably larger and the people who are part of it are the direct and potential users of forest ecosystems and they should have more responsibilities for the conservation and the preservation of the natural components. The lack of specialized knowledge about the processes in these complex ecosystems must be compensated by building an ecological culture from an early age. The inclusion in such initiatives will meet in practice the goals set in the UNESCO Operational Strategy for Youth 2014-2021 for "Improving investment in research, policies and programs to create incentives and rights-based an environment, in which young people The project №CB007.2.32.170 "For everyone saved a tree (FOREST)" is cofunded by the EU through the Interreg-IPA CBC Bulgaria-Serbia Program



prosper, regain their hope and sense of community and engage as responsible social partners and innovators."

The studies carried out under Project №CB007.2.32.170 "For everyone saved a tree" for ongoing activities in European countries about inclusion of young people in environmental protection and building in them an ecological culture found different degrees of scope and effectiveness of these activities in different countries. There is a clear trend of more effective organization and involvement of a larger share of young people in environmental protection activities in countries with the most man-made nature and the least natural forest. The best example that supports this fact is the United Kingdom (England, Scotland and Wales) with the Forest Education Initiative (FEI), which was set up in 1992 and involves a partnership of a wide range of bodies including civil society organizations, state and municipal organizations, forestry and educational sectors. FEI's strengths are a flexible governance structure, a comprehensive and effective network of cluster groups (with an average of over 20,000 participants per year in initiatives) that reflect local needs and interests.

At European level, there are many initiatives aiming to involve young people in activities to protect forest ecosystems in order to build environmental awareness, such as:



- Youth and Environment Europe (YEE) is a federation of 45 youth, environmental organizations from 28 European countries. YEE organizes and encourages all activities that can increase the knowledge, understanding and appreciation of nature and the awareness of environmental problems among young people in Europe. Its aim is to promote the commitment of youth to the principles of environmental conservation.
- Youth Working Party. The Youth Working Party prepares items
 for discussion by EU ministers for youth. Its work includes youth
 issues such as: participation and active citizenship, including
 through 'structured dialogue; solidarity and social inclusion of
 young people; recognition of the value of informal and nonformal learning; youth work; opportunities for young people in
 education and training and in the labor market;

In addition to the exciting initiatives, a resolution of the Council of the European Union for European cooperation in the youth field and adopting a European Union Youth Strategy 2019-2027 was accepted in 2019. Part of the resolution is the chapter 10 - SUSTAINABLE GREEN EUROPE, which deals with the inclusion of the young people in environmental activities and more specific to ensure everyone, including the young people, knows the effect of their actions on the



environment. Some of the main fundamentals of the future strategy are:

- Empower the entire society, especially young people, to act as agents of change for environmental and sustainable development.
- Take into account the environmental impact of every policy and life decision, while ensuring that young people are included in sustainable development policy-making on all levels.
- Increase international cooperation to eliminate environmentally harmful production and consumption.
- Support and strengthen opportunities for young people to volunteer in the environmental sector.
- Ensure everyone, especially young people, has access to eco-friendly infrastructure for living a more sustainable lifestyle.
- Expand research and innovation into eco-friendly solutions and technologies.

Despite the successes achieved, broader national and international cluster networks with a governance structure and funding are needed. These cluster networks should include all possible state, municipal, private and non-governmental structures and organizations for the



implementation of activities that are connected to the environmental education of young people. Also, they should reflect the specific interests and needs of different age groups. Even the FAO-Global Forest Education Project (FAO-ITTO-IUFRO) initiative with over twenty years of history, has not reached the development of a common vision and strategy and it is still evolving into small structures in individual countries with a limited number of advisory members.

Unfortunately, the development of forest and environmental education of young people in the EU is aimed primarily at organizing a specialized training in secondary and higher schools. This approach limits the huge potential of forest ecosystems for education and training of the majority of young people in the society.

National context

The history of the change of the forest area on the territories of the Republic of Bulgaria and the Republic of Serbia follows the historical course of the destruction of the centuries-old forests in Europe with some peculiarities.

In the past, the lands of Bulgaria and Serbia were covered with dense and impassable forests. Chroniclers and travelers describe the impressive forests of the mountains and lowlands, through which they



passed. The most famous one is the "Great Bulgarian Forest" (Silva Magna Bulgarica or Silvas Bulgarorum) described in 1096, as "huge and extensive" (ingentia et spatiossissima) and widely spread "longe lategue". This was a forest area with centuries-old oak forests, stretching between Belgrade and the eastern end of the Trajan's Gate pass at the beginning of the Thracian lowlands and more than eight days were needed to be crossed. A remain of this forest is the Granite oak (Quercus robur L.) - the oldest tree in Bulgaria aged about 1650 years. The vast forests of the Ludogorie (Deliorman) were called "sea of trees" (ağaç denizi). The first reports for it is as early as the Middle Ages. The main tree species were common oak (Quercus robur L.), Hungarian oak (Quercus frainetto Ten.) and Turkey oak (Quercus cerris L.). The mountains within Bulgaria and Serbia were also covered in the past with centuries-old coniferous and mixed deciduous and coniferous forest. Evidence of this is the Baikusheva pine (Pinus heldreichii Christ) - a Bosnian pine over 1300 years old.





Fig. 2. Pinus heldreichii Christ - Bosnian pine over 1300 years old situated in Pirin National Park





Fig. 3. Granite oak (Quercus robur L.) - the oldest tree in Bulgaria aged about 1650 years

The destruction of the forest cover on the Balkan Peninsula and within the modern borders of the two countries, Bulgaria and Serbia, began with the development of ancient civilizations in the region. During this time, the forests in the southern parts of the Balkans were the most affected ones. This is evidenced by the small share of forest ecosystems in the modern borders of Greece, where they occupied 12% of the country's territory. Within Serbia and Bulgaria, the rate of reduction of



the area covered by forests during this period and subsequently is significantly slower. The reason for this is the later compared to Western Europe development of agrarian and industrial revolutions, which led to the preservation of the forests. Nowadays, the area covered by forest in both countries, occupies 29% and 34% of their territories.

The great forest diversity provides an opportunity for extensive training of the young people in the two main directions of human impact on forest ecosystems - improving their conservation status and sustainable use. The existence of old natural and modern forests that are influenced or created by man, can be used as a base for inclusion of the young people in environmental initiatives.

An essential feature in Bulgaria and Serbia is the presence of a large share of public education on all levels and the majority of forests are state-owned. This facilitates the organization, implementation, monitoring and financing of activities to involve students in environmental protection. Due to the compactness of the landforms in both countries, the implementation of cognitive excursions, involvement in management activities, protection and creation of forests is extremely easy.



IV. CURRENT SITUATION AND MAIN CHALLENGES FOR THE PARTICIPATION OF YOUNG PEOPLE IN NATURE CONSERVATION

ACTIVITIES

Children can be used as a limiting factor for environmental violations. Their participation is a complex and bilateral process but, unfortunately, in Bulgaria the involvement of the young people in environmental initiatives is not very well developed on a national level. There is a lack of a single strategic approach to build environmental culture and awareness among the young people. Although, there are some initiatives that target their involvement in the environmental protection. For example, every year the Ministry of Environment and Water of the Republic of Bulgaria organizes four national campaigns:

- 1. "Earth Day" April 22
- 2. "World Environment Day" June 5
- 3. "Day of the Danube River" June 29
- 4. "European Mobility Week" September 16-22

Unfortunately, their duration is limited (dates only) and the participation of young people is also limited.

In Bulgaria there is in force a national youth strategy 2010-2020 but the involvement of the young people in environmental protection or rising



the ecological culture of the young people is not one of the priorities of the strategy. The emphasis of the strategy is on the social inclusion of the young people, not taking into consideration that in the times of ongoing climate changes and transformation to green economy, the environment and the social systems are strongly connected. Environmental education is also very important for the development of the young people's values and way of living, but again in the Bulgarian youth strategy, this is not one of the priorities, although, there is a chapter "healthy way of living". Maybe in the new strategy taking into account the new green policy of the EU rising the ecological culture and the inclusion of the young people in environmental protection activities will be one of the key new moments.

Good example for shearing all European information concerning young people, including the policy, programs and projects that regards the environment, is EURODESK initiatives IN BULGARIA. The goals of these organizations are to collect all the information concerning young people and their involvement in different EU programs and to present it in an understandable language.

Local partners of the Ministry of Youth and Sports of the Republic of Bulgaria as municipal administrations, inspectorates of the Ministry of Education and Science of Bulgaria, sports clubs, school managements The project NeCB007.2.32.170 "For everyone saved a tree (FOREST)" is cofunded by the EU through the Interreg-IPA CBC Bulgaria—Serbia Program



and other public organizations are organizing and conducting leisure programs and outdoor activities for students like sports, tourism and field trips. These events aim to rise the popularity of the natural way of life trough activities like hiking, orienteering, climbing and various other forms of tourist activity in the living nature. These events are sporadic and, unfortunately, their duration Is limited (dates only) and the participation of young people is also limited.



Fig. 4. Field trip during the implementation of the "FOREST" project.



V. VISION FOR THE DEVELOPMENT OF THE INITIATIVE FOR THE INCLUSION OF YOUNG PEOPLE IN NATURE CONSERVATION ACTIVITIES

Development of initiative or strategy for the inclusion of young people in natural conservation activities is an ambitious task that has to build a relationship between the natural environment and young people across the Republic of Bulgaria and the Republic of Serbia who had little or no previous contact with nature. The main goal of the strategy is to develop a solid connection and build awareness and understanding in the young people about the state of the environment and the natural processes around them. The main idea of such initiative is the belief that, if given the right opportunities, young people, who had previously seen the protection of the natural environment as irrelevant or peripheral to their lives, would discover the benefits for themselves and for the nature, if they are involved in environmental protection initiatives. Then that they would come to value those benefits and develop a level of care and commitment for the natural places around them.

The proposed initiatives should provide ways to increase the interest and capture the imagination of the young people who would not traditionally engage with the natural environment. The strategy should be focused on what will motivate young people to get involved in



environmental protection activities and how to introduce the young people to the natural environment in creative, yet productive ways. Because of that, the proposed initiatives should be built on the following baselines:

1. Capturing the imagination by using innovative approaches

A number of authors have written about the key role of visual arts in raising awareness about environmental issues and developing emotional connections to nature. Visual arts and Eco-art education can include everything from young children making artworks out of leaves and branches, to photographic images of places, to large collective community artworks that encourage debate and dialogue.





Fig.5. Eco toy workshop during the implementation of the "FOREST" project

- Hi-tech for Wildlife observing is also a good approach to capture the imagination of the young people, for example, in the City of Nottingham a webcam showing footage of peregrine falcons nesting in the city center captured the imagination of many residents, far beyond the traditional audience of nature enthusiasts.





Fig. 6. Australian researchers have revealed a tiny 'backpack' chip developed with Intel that could help shed new light on the flight of the bumblebee.

2. Focusing on 'fun' and 'themes' rather than an overt focus on 'nature' or 'conservation'

This strategy is designed primarily for nonformal situations where participation will usually be voluntary. Therefore, the planned activities here have to be active and enjoyable. They are not lesson plans and are not supposed to resemble school, so they include minimal instruction and no quizzes or exams, except as a fun part of an activity. The level of engaging and fun will depend in large measure on the ages of the kids with whom you are working. What works for a 6-year-old will likely seem silly to a 16-year-old.





Fig. 7. Afforestation campaign conducted during the implementation of the "FOREST" project.



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Fig. 8. Setting the Scene for Nature, Community Forest Trust The 'Elf and Fairy Fair' and 'Mab's Magical Fair' in England are large scale community events, held in local woodlands, using fun, nature-focused activities, to engage residents with the woods for the first time.

3. Offering a menu of activities that catered to different preferences Getting Out There

Activities, such as bush craft, survival skills, circus skills, felt making, mountain biking and green wood working, to music making and puppet making, have to be offered to young people from varied cultural backgrounds during residential trips or other activities that will help the young people discover the benefits, for themselves and for the nature.





Fig. 9. Green wood workshop conducted during the implementation of the "FOREST" project

4. Keeping activities simple and effective, so they could be easily replicated

Collect rocks, twigs and other items outside and combine them with animal toys you already have at home. An easy way to transform normal things into an opportunity for imaginative play. Connecting Naturally, for example, simple bird identification sheets can be used by parents and young people for bird watching during outdoor play sessions.



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Fig. 10. Workshop for development of Herbariums - "FOREST" project

5. Using practical activities that encourage group working

Young people can be involved in wildlife monitoring, running activity days for children, tree maintenance, afforestation campaigns, also bracken bashing at a country site and 'guerrilla gardening' are useful instruments to encourage a connection with nature through teamwork.



Fig. 11. Restoration of endangered plant species - during the implementation of the "FOREST" project



6. Providing an exhilarating experience of the natural environment

Environmental Education and Outdoor sessions always can be incorporated with activity based around learning about the natural environment. For example, canoeing sessions can be accompanied by cleaning of water bodies, mountain biking combined with tree measuring and ageing.



Fig. 12. Outdoor learning session and assessment of tree health status – field campaign during the implementation of the "FOREST" project



7. Using the arts and different media connections

When educators try to encourage young people to establish a bond between them and nature, they are faced with a major challenge. In general, many children seem to have lost interest in nature because it is less exciting than the world of electronic illusions (Boeckel, 2009). Educators seem badly in need of innovative ways to awaken and nourish the sensibility of young people to the natural world. One possible solution for this dilemma is to keep the learners in touch with that educator and promote reflection and reinforcement of environmental messages through the use of Art and social media. Many children are familiar with the use of social media through sites such as Facebook and Twitter, and recently schools are more commonly using blogs to communicate student ideas and achievements to their community and other schools.

Art through engaging the senses, can be a unique catalyst in developing a "sense of wonder" about nature. Art practice encourages us to see the world again afresh, as if we see it for the first time.

For example:

- In Britain, Nottingham, Canal and River Trust, a range of arts activities were used to engage local people to generate an



interest in the canal: an animated film, four large puppets linked to canal wildlife, art-based interpretation panels, a wildlife inspired dance project and an interactive treasure hunting.

During the implementation of the "FOREST" project a Joint Database (JDB) was created. The purpose of the JDB is to allow processing and analysis of information and monitoring of problems encountered in the nature habitats, etc. The JDB will allow continuous exchange of information between young people and can involve other actors (new partnerships) with their data and project proposals. This high-tech approach will help compare the state of species populations and forest habitats in both countries and also mutual assistance in case of problems related to ecosystem disturbances.













Fig. 13. The "FOREST" project's Joint Database



VI. STRATEGIC AND OPERATING TARGETS

Strategy for inclusion of young people in environmental protection initiatives is an interdisciplinary document that is rooted both in science and societies, concerned not only with environmental literacy, but also, with the relationship people have with their environment. Any strategic document that regards the environmental protection should gave some conceptual clarity with regard to Environment - by asking a variety of fundamental questions, which correspond to the various learning domains of environmental education: knowledge-understanding, involvement-values, responsibility-care and, finally, empowerment action competence. Some of these questions are: What is Environment? What does Environment mean? Does it mean the same to everybody? What are some underlying assumptions, values and ethics? What is happening to environment? What are the causes? What are the consequences? What can organizations do about it? What can individuals do about it? What should we be doing collectively? What should we not be doing? How can the theme become existentially relevant to the everyday life of citizens? What should be the role of education in this regard? There are no simple answers to these questions and the answers are likely to vary with context. Taking into consideration the experience gained during the implementation of the



"FOREST" project, the following approach of reaching the strategic and operating targets is adopted:

1. A "stepping stones" approach

"During the implementation phase of the "FOREST" project, a conclusion was made that a better involvement of the young people can be reached if the participants in such projects can work through progressive stages, increasing their confidence and experience along the way, whilst allowing them to stop when they feel comfortable. The analogy of "stepping stones" to describe the gradual, incremental process of building relationships with the natural environment is used. The stepping stone approach can include the following steps:

- Develop an understanding of the significance and importance of the local natural environment
- Engage in experiential, hands-on, open-ended, discovery learning and play in a wide range of environments
- Actively participate in multi-disciplinary (mathematics, literacy, science, humanities, the arts, information and communication technologies) learning activities focusing on linking knowledge schemas on the environment





- Engage in individual and collaborative focused observation, problem solving, decision-making and critical reflection about points of individual and group interest in the environment
- Engage in a range of physical experiences to support the building of personal strengths, confidence and resilience in negotiating challenges in the natural world, including uneven terrain, steep inclines and rock formations and logs
- Develop a set of values connected to nature, including caring behaviors towards the environment and communicating thoughts and ideas about identifying and problem-solving environmental problems





Fig. 14. Stepping stones

2. Starting local and then venturing further afield

Any strategy for involvement of young people should be based on an approach of building ownership that began close to home. The young people can start with delivering a range of doorstep activities, such as tree planting in the local communities or making bird feeders at the after-school club, for example. If the strategy, or more precisely, the respective stakeholders, that will promote the involvement of young people in environmental activities, came to understand the specific barriers that prevented young people from engaging more fully with their natural environment, they would be able to offer them a better environmental activity, such as tailored trips to parks, nature reserves,



national parks, high mountains and other green spaces. Eventually, overall responsibility for planning and delivering activities can be handed over to different groups or NGO organizations. For example, during the implementation of the "FOREST" project, a new interesting activity related to the conservation of biodiversity and forest habitats gathered the young people to visit two fabulously beautiful places close to their home town of Etropole - the Nature Park "the Pastures of Heaven", close to the village of Osikovitsa and the beech forests around the Etropole Monastery. The purposes of these filed trips were first, the local young people to get acquainted with a number of valuable plant species, and second, to engage them in some restoration activities. Furthermore, during that filed trip the young people gained important knowledge about the main national and European regulations related to the conservation status of plants and they learned what the methods for preserving genetic diversity in the field are. The young people that participated in this initiative actually manage to increase the population of some valuable species by more than 300% using planting material from other localities of these species, in which their numbers are higher. The same activities were planned for different localities in the Republic of Serbia away from their home town.





Fig. 15. Restoration of valuable plant species during the implementation of the "FOREST" project

3. An empowering approach with volunteers

Environmental initiatives should encourage volunteers to attend training that they could benefit from and use within the arena of conservation and community work. Volunteers can play a critical role in creating opportunities for young people to experience and interact with their natural environment and they provided much needed



encouragement and support to sustain this engagement. There is, however, a risk that long-term continuous input from supervising organizations will hinder the ability of people to instigate and deliver activities on their own. Determined to avoid this, the strategy or any initiative for involvement of young people in environmental protection should work with young people and groups in an empowering way. At the heart of volunteer empowerment is the acquisition of new knowledge and skills. The training of volunteers can be both formal (via accredited training courses) and informal (learning through doing). It can cover a vast extent of skills from all aspects of practical conservation through film-making, event management and first aid. Volunteers can also be signposted to other groups and organizations, so that they could further develop and utilize their skills, and some were encouraged to take on roles as natural environment 'ambassadors' or 'champions', so that they could motivate and inspire others.



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Fig. 16. Educational course and empowerment of volunteers to assist as collaborators the Joint Database of the "FOREST" project

4. Engaging people in projects that they care about

One of the main goals of the project "For everyone saved a tree (FOREST)" was to build a real feeling of ownership, involvement and satisfaction that the young people can make a visible improvement to the local forest ecosystems. Because of that, one of the main targets of the strategy is to encourage people to feel a sense of ownership towards the natural environment. This can be challenging when there are no green spaces in their area or their local sites are neglected, in poor condition and associated with anti-social behavior. The "FOREST" project has demonstrated that negative perceptions can be addressed through small-scale easily identifiable improvements, like planting new trees and restoration of valuable plant species. Furthermore, during the implementation of the project, a firm conclusion was made that one of the most powerful ways to change young people's attitudes has been to get them involved in projects that improve local sites or create new habitats. Features of this approach that have been critical are as follows:

• Engaging local people in the design of projects or environmental initiatives from the outset





- Involving local young people in developing the original funding application
- Focusing efforts on visible improvements
- Providing multiple and prolonged opportunities for young people to get involved, so that they can develop a relationship with each other and their local green spaces
- Tapping into the enthusiasm of a few young people and building from there
- Creating opportunities to showcase and celebrate improvements to provoke a sense of pride in the young people





Fig. 17. Engaging young people in mapping, assessing and improving the status of valuable species' populations around their home town of Etropole

5. **Building information and communication infrastructure**

In order to ensure that the involvement of young people in environmental initiatives can be sustained, we need to give the young people the training and the confidence to deliver outdoors, environmental and friendly activities without being accompanied by a supervising person. Because of that, a communication infrastructure for



dissemination of information, expertise and resources that regards the environmental protection should be available. The partnerships and collaborations that have been harnessed through the project initiatives during the implantation of the project "For everyone saved a tree" between are a critical feature of the projects' legacy and there have been notable achievements in this respect. Based on the experience gained during the implementation of the project, we think that the following steps will improve the involvement of young people in environmental initiatives:

- Building information channels between schools and different educational institutions with wildlife / conservation sites and groups.
 This will provide on-going opportunities for their students to engage with the natural environment.
- Better connections between young people who are passionate about the natural environment and young people that are not well connected with the environment. This connection can be built through practical activities on sites and went on to form new groups. Others linked up through joint training events or workshops.
- Broad use of Hi-Tech channels of communication. The Information sharing is easier because of new websites and the use of social



networking opportunities. Good example here is the JDB created during the implementation of the project "For everyone saved a tree".

- Improved governance structures, new management plans, better volunteer management policies are among the needed capacity improvements that ensure that the young people will remain active and effective participants in different environmental initiatives.
- Legacy materials created during the implementation of the project "For everyone saved a tree" (website, workbooks, good practice guides, etc.) should be disseminated through existing networks.

VII. COORDINATION, IMPLEMENTATION, MONITORING AND

FINANCING

This strategy is designed primarily for informal situations, where participation will usually be voluntary but in the implementation of the strategy a different government and non-government organization can also be involved, as well as private and business-oriented entities. Because of that, the coordination and the implementation of such a strategy is a complex task and the complicities come from two directions: first, because of the variety of the participants that can take part in the engagement of young people in the environmental



initiatives, and second, due to the dynamic and open character of the strategy, which enables its constant upgrading and improvement. The initiatives that will be proposed and that are in accordance with the strategy can be organized and supervised by different stakeholders who possess the expertise and the needed resources to educate or to inspire the imagination of the young people to participate in environmental initiatives. Due to this huge variety of participants and organizations that can be involved in different environmental initiatives, we think that the best method for coordination will be the Open Method of Coordination (OMC). This is a policy-making process or regulatory instrument that does not require legislation but is a method of soft governance, which aims to spread best practice and achieve convergence towards involvement of young people in environmental initiatives. Since legislation cannot be used as an instrument to achieve convergence among different organizations that can be involved in the process of developing an understanding in the young people of the importance of the natural environment, OMC relies on other mechanisms. These mechanisms involve establishing guidelines that can help the different organizations that participate in such initiatives to learn from one another and consequently improve their domestic environmental policies. The proposed strategy can be used as guidelines to achieve better involvement of the young people in different The project №CB007.2.32.170 "For everyone saved a tree (FOREST)" is cofunded by the EU through the Interreg-IPA CBC Bulgaria-Serbia Program



environmental initiatives. A joint databases can also be a suitable instrument for coordination and monitoring of environmental initiatives. A good example is the Joint Database that has been developed under the implementation of the project "For everyone saved a tree (FOREST)".

Financing

Different financing instruments and measures both on national and EU level can be used to support the environmental initiatives that target the inclusion of young people. The following steps can be useful instrument for financing of environmental initiatives.

- Improving the skills of youth organizations and service providers for young people to attract external financial resources for project development, financing and management
- Providing funds from the state budget for inclusion of youth in environmental initiatives
- Providing funds from municipal budgets for youth programs and environmental activities
- Providing support to the inclusion of young people in environmental initiatives through the Erasmus+ program



Providing support for targeted activities for youth development and green entrepreneurship through EU funds within the operational programs "Human Resources Development", "Administrative Capacity", "Development of the Competitiveness of the Bulgarian Economy", "Regional Development", as well as through "The Rural Development Program".



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