

THE ECOFAR PROJECT – A CHALLENGE FOR THE FURTHER SUSTAINABLE DEVELOPMENT OF AGRICULTURE THROUGH IMPROVING THE EDUCATION OF YOUNG ECO-FARMERS

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Abstract: The agriculture sector is one of the driving sectors within the European Union countries, and nowadays much attention is paid to the sustainable development of this industrial sector. Having in mind that farming is mostly a family activity in most Member States with family labour accounting for more than 90 % of agricultural workforce in Bulgaria, Croatia, Poland and Slovenia, the continuing education of those small farmers is of increasing concern for the European Union Policies. Thus, the project entitled “Development of managerial and entrepreneurial skills of young eco-farmers via joint VET curricula, enhanced qualification profile, assessment standard and sustainable cooperation synergies” (ECOFAR, Project No: 597256-EPP-1-2018-1-BG-EPPKA3-VET-JQ) was supported by the European Union. The main aim of this project was to develop a joint VET qualification curriculum for improvement of the managerial and entrepreneurial skills of young eco-farmers by including improved transparency, comparability and recognition of those qualifications.

In order to develop further the knowledge, skills and competences of young eco-farmer entrepreneurs, a curriculum composed of 7 modules was developed by the researchers of the projects partners from Bulgaria, Greece, Slovenia and Turkey. In the present study, the main objectives, expected results and expected impact of the project as well as the development of the joint qualification curriculum are described.

Keywords: eco-farmers, managerial skills, entrepreneurship, vocational education and training.

Introduction

The agri-food sector in the European Union (EU) appears to be one of the most important economic sectors. Thus, the main destination of the development of the agri-food sector within EU is the achievement of high-quality and safe food products as well as ecological social and economic sustainability. Based on this, the Common Agricultural Policy (CAP) reform initiated in 2014 by the EC is intending to assist farmers (including eco-farmers) taking the responsibility for their business and also theoretically have more freedom in managing their farms. Furthermore, there is increasing concern towards the fact that there is a shortage of young farmers in EU countries. About 55% of the farmers are over 55 years old, while only 14% are younger than 40 years of age within EU countries. Therefore, within the CAP reform a special scheme for support of young farmers was involved (Rovny, 2016). The lowest young farmer percentage was found in Bulgaria, Italy, Portugal, Romania and Greece (Rovny, 2016; Zagata and Sutherland, 2015). To enable young farmers’ start-up business, besides special supports, the training of young farmers to improve their skills to lead a sustainable business is mostly appreciated as very significant part of the CAP reform. A number of researchers pointed out the significance of providing training to farmers in entrepreneurship and management and especially in organic farming (Arabska, 2012; Arabska, 2014; Terziev, 2016; Simpachova et al., 2018; Dias et al., 2019). In its turn, farmers might be considered both as entrepreneurs and managers

who aim to increase their income. According to Dias et al. (2019), development of entrepreneurship training programmes especially for young farmers is of crucial importance for the involvement of young people into the sector as well as the sustainable development of the EU agricultural sector.

Based on the need for training programme of young farmers, the ECOFAR (Development of managerial and entrepreneurial skills of young eco-farmers via joint VET curricula, enhanced qualification profile, assessment standard and sustainable cooperation synergies) project was prepared with the incentive to provide training for developing of the managerial and entrepreneurial skills of young eco-farmers.

Materials and methods

The target groups of the project include young vocational education and training (VET) learners (at age of 16-29), eco-farmers, young entrepreneurs in the eco-farming sector, VET trainers, VET centres providing further training / (pre-) qualification courses, small and medium-sized enterprises (SMEs) active in the field of eco-farming and policy makers in the field of VET policy reforms.

The coordinator of the ECOFAR project is the National Vocational High School of Veterinary Medicine "Ivan P. Pavlov", Stara Zagora, Bulgaria. The partners involved within the project consortium are:

- Ecology KM Ltd. Bulgaria;
- National Agency of Vocational Education and Training, Bulgaria;
- Maribor University, VET Centre for Continuous Education, Slovenia;
- Institute of the Republic of Slovenia for Vocational Education and Training, Slovenia;
- Canakkale Onsekiz Mart University, Centre for Vocational Education and Training, Turkey;
- Regional Educational Directorate of National Education, Kocaeli, Turkey;
- Eufora, Greece.

The aims and objectives of the project are defined as follows:

- to increase the employability of young entrepreneurs (especially eco-farmers) by provision of dedicated extended VET curricula for management of eco-farm micro enterprises;
- to the develop highly skilled, qualified workforce with special attention to the young generation (16-29 years old) in the eco-farming enterprises;
- to deliver tangible and sustainable outcomes in establishing an improved/enhanced joint VET qualification curricula and assessment standard in the field of eco-farmer entrepreneurship and management including better transparency, comparability and recognition of those qualifications;
- to support joint developments in VET in Europe and strengthen overall its quality, relevance and attractiveness via establishment and continuous sustainable cooperation between main key players in Bulgaria, Greece, Slovenia and Turkey (VET providers/schools, employers and the policy makers/qualification and accreditation bodies);
- to implement all project activities as part of the work-based learning and a mobility component (via joint learners' transnational events), addressing ECVET learning outcomes and proper recognition and validation of the learning achievements and outcomes;
- to cover skills mismatch and shortages as well as the need for higher level skills at sectoral level of eco-farming management and entrepreneurship as identified by the European Union.

It is aimed that by equipping young entrepreneurs to become well-prepared (in terms of knowledge, skills and competences) managers, youth unemployment will be countered and potential bankruptcy of newly established and existing micro SMEs will be prevented.

The expected overall impact of the project can be outlined as follows:

- Further development of knowledge, skills and competences of young eco-farming entrepreneurs/managers.

- Enhancement of the existing eco-farming occupational profiles in partner’s countries (Bulgaria, Greece, Slovenia and Turkey) via development and accreditation of extended joint qualification curricula.
- Stabilization and improvement of the production capacity and growth of eco-farming micro and small medium-sized enterprises.
- Covering the learning gap in terms of lack of provision of VET training materials in the field of management and entrepreneurship competencies acquisition.
- Further stabilizing of the eco-farming sector by developing the newly established micro SMEs in partner countries (Bulgaria, Greece, Slovenia and Turkey).
- Provision of targeted and accredited joint qualification curricula that will support the National plans for development of the agricultural sector in Bulgaria, Greece, Slovenia and Turkey in accordance with Council Regulation (EC) No. 834/2007 of 28 June 2007 on organic production and repealing Regulation (EEC) No. 2092/91.

In this sense, the project will be an opportunity to fight against youth unemployment and to prevent potential bankruptcy of newly established and existing micro SMEs due to lack of managerial knowledge, skills and competences by their managers.

Results and discussion

In order to achieve the project aims and objectives, seven work packages (WP) are developed. These are:

- WP1 Management;
- WP2 Quality assurance;
- WP3 Dissemination and exploitation;
- WP4 Enhancement of the existing occupation profile of eco-farm managers;
- WP5 Development of joint qualification curricula for acquisition and further enhancement of managerial and entrepreneurial competences by young entrepreneurs/managers;
- WP6 Development of assessment standard and pilot implementation;
- WP7 Development of mobile learning application.

“WP1 Management” aims to achieve mutual agreement and understanding the project aims, objectives, work programme and expected results by all partners; effective collaboration between partners and with the project target groups and stakeholders and relevant participation of all representatives of the target groups at all stages of the project development and implementation. Within this work package, project management handbook is developed to serve as a guide in implementing the activities within the project.

“WP2 Quality assurance” is targeted to develop effective and balanced cooperation among the partners, active participation of all target groups during all project stages to achieve added value and contribution to policy at local, regional, national and European levels. Quality plan as well as internal assurance and external evaluation reports will serve in evaluating the degree of successful implementation of the project tasks.

The activities within “WP3 Dissemination and exploitation” will ensure that the outcomes of the ECOFAR project are recognised among educational organizations and users in all partner countries (Bulgaria, Greece, Slovenia and Turkey) and at European level. Dissemination strategy manual will serve as a tool for the differentiated dissemination actions towards different domains such as disseminating for awareness raising, understanding, support and actions.

“WP4 Enhancement of the existing occupation profile of eco-farm managers” will focus on the development of a framework for the enhancement of the existing occupational profile of veterinary technician / eco-farmers based on the learning outcomes envisaged for the new joint qualification curriculum.

The aim of WP5 is to develop joint qualification curriculum for acquisition and further enhancement of managerial and entrepreneurial competences of young farmers at eco-farm small and

medium-sized enterprises. For this purpose, European Credit System for Vocational Education and Training (ECVET) based learning outcomes taking into account the best balance of knowledge, skills, competences and creativeness that will be of use for all trainees involved in the learning process are prepared.

In WP6, assessment standard will be developed to ensure that both target end-users as well as all relevant stakeholders are involved within the evaluation process of the project outputs. The degree of implementation will be reported through national piloting reports as well as consolidated piloting report.

“WP7 Development of mobile learning application” aims to provide the target groups and relevant stakeholders with online collaborative learning portal and web-based mobile app for smart devices in English as well as in all partner languages (Bulgarian, Greek, Slovenian and Turkish).

In WP5, the joint qualification curriculum for acquisition and further enhancement of managerial and entrepreneurial competences of young entrepreneurs in eco-farming is developed in accordance with European Credit System for Vocational Education and Training. For this purpose a standard chart is used and 7 different modules are prepared by the partners. In Table 1, the aims and objectives of the modules are provided.

Table 1. Aims and objectives of the modules of the joint qualification curriculum for acquisition and further enhancement of managerial and entrepreneurial skills by young entrepreneurs in eco-farming

Modules	Aims and Objectives
Module 1	<p>Understanding entrepreneurship in eco-farming</p> <ul style="list-style-type: none"> – To define and provide knowledge about the concept of eco-farming – To provide information about what is entrepreneurship – To provide knowledge about entrepreneurship implementations in eco-farming – To raise awareness about the entrepreneurship in eco-farming
Module 2	<p>Entrepreneurship dynamics</p> <ul style="list-style-type: none"> – To provide information about foundation and development of an entrepreneurial enterprise – To provide knowledge about the implementation of entrepreneurship – To improve the decision making skills in terms of developing entrepreneurial eco-farming competences
Module 3	<p>Entrepreneurial and managerial challenges in eco-farming</p> <ul style="list-style-type: none"> – To provide detailed information about the sustainable management of entrepreneurial eco-farm businesses; – To provide knowledge about how to deal with managerial, marketing, respect and sustainability challenges in eco-farming; – To build up long-term planning in eco-farming businesses in order to achieve sustainable development; – To raise awareness towards the importance of trustworthiness and respect in entrepreneurial businesses among (young) entrepreneurs.
Module 4	<p>Access to finance and markets</p> <ul style="list-style-type: none"> – To provide knowledge about the financial and marketing actions required for a successful entrepreneurial business – To provide information about the funding possibilities for establishing an eco-farm, both at national (Bulgaria, Greece, Slovenia and Turkey) and EU level – To equip the young entrepreneurs with the necessary practical know-how on the preparation of business plans for eco-farms – To provide information about the marketing opportunities and how to address marketing challenges in eco-farming – To raise awareness about new marketing strategies such as e-marketing

Module 5	<p>Recognition of prior learning, in-house further training provision and mentoring support</p> <ul style="list-style-type: none"> – To provide knowledge and guidelines to young entrepreneurs/managers of eco-farm entities on how to organise recognition of prior learning, in-house further training and mentoring support for newly recruited staff. – To provide information and guidance about how to build up strong and mutual partnership through mentoring – To provide step by step guidance on overall conducting the process of mentoring support – To raise awareness about the importance of mentoring in order to create a culture of entrepreneurship among farmers and their employees
Module 6	<p>Legislation in eco-farming</p> <ul style="list-style-type: none"> – To provide knowledge about legislation of eco-farming products at national (Bulgaria, Greece, Slovenia and Turkey) and EU levels – To provide information about the way of applying for certification of the products obtained through eco-farming at national level (Bulgaria, Greece, Slovenia and Turkey) – To raise awareness about the significance of certifying eco-farming products
Module 7	<p>Social entrepreneurship</p> <ul style="list-style-type: none"> – To define and provide knowledge about social entrepreneurship – To provide information about the implementation of social entrepreneurship in eco-farming

In Table 2, the table of contents of each module are summarized. These contents are further elaborated in view of the needs for improvement of the managerial and entrepreneurial skills and competences of young eco-farmers.

Table 2. Contents of the modules of the joint qualification curriculum for acquisition and further enhancement of managerial and entrepreneurial skills by young entrepreneurs in eco-farming.

Modules	Contents
Module 1	<p>Understanding entrepreneurship in eco-farming</p> <ul style="list-style-type: none"> – What is the concept of eco-farming? – What is entrepreneurship? – Eco-farmers as entrepreneurs – The entrepreneurial environment – Barriers and challenges
Module 2	<p>Entrepreneurship dynamics</p> <ul style="list-style-type: none"> – Establishment / Entry – Survival – Early growth – Rapid/Firm growth – Maturity
Module 3	<p>Entrepreneurial and managerial challenges in eco-farming</p> <ul style="list-style-type: none"> – Sustainable land management – Promoting new technologies and innovation – Broadening management skills – Trustworthiness and respect in business – Promoting group entrepreneurship – Enhancing and managing efficiencies in production – Managing eco-farm businesses according to a long-term plan – Capturing value within the value chain – Using specialized software
Module 4	<p>Access to finance and markets</p> <ul style="list-style-type: none"> – How to finance new entrepreneurships

	<ul style="list-style-type: none"> - New strategies for financing - Applying management accounting - What is a business plan? - Funding opportunities at national (Bulgaria, Greece, Slovenia and Turkey) and EU levels - How to conduct a successful interview in obtaining funds, credits and/or bank loans? - Identifying your eco-system: supply and demand - How to establish sustainable marketing relations? - E-marketing opportunities for young eco-farm entrepreneurs
Module 5	<p>Recognition of prior learning, in-house further training provision and mentoring support</p> <ul style="list-style-type: none"> - Recognition of prior learning and provision of training support - Recognition of prior learning - Matching the level of existing knowledge and the requirements of the field work in the eco-farm - Approaches to acquire new knowledge - Possible training approaches - Coaching sessions - Practical/case assignment - Mentoring support for newly recruited employees, or among farmers - The benefits of work based mentoring - Key successful factors - How to become a successful mentor? - Mentoring activities - How to assess the results and impact?
Module 6	<p>Legislation in eco-farming</p> <ul style="list-style-type: none"> - Legislation of eco-farming products at national level - Where to find information about legislation at national level? (Bulgaria, Greece, Slovenia and Turkey) - Legislation of eco-farming products at EU level - Organic production - Labelling of organic products - Certifying your products (in Bulgaria, Greece, Slovenia and Turkey) - Preparing for the documents for the certification procedures - A checklist for certification procedures of eco-products in the partner countries (in Bulgaria, Greece, Slovenia and Turkey)
Module 7	<p>Social entrepreneurship</p> <ul style="list-style-type: none"> - Social entrepreneurship definition - What is social entrepreneurship? - Relevant national legislation (in Bulgaria, Greece, Slovenia and Turkey) - Relevant EU legislation - Setting up a social enterprise - Steps - Identify your mission - Theory of change - Plan for sustainability - Bring an idea to scale - Social entrepreneurship in eco-farming - How to establish a social enterprise in eco-farming

In Table 3, the learning outcomes in terms of knowledge, skills and competences of the joint qualification curriculum for acquisition and further enhancement of managerial and entrepreneurial skills by young entrepreneurs developed by the partners in accordance with ECVET are provided.

Table 3. Learning outcomes of the joint qualification curriculum for acquisition and further enhancement of managerial and entrepreneurial skills by young entrepreneurs

	Learning Outcomes		
	Knowledge	Skills	Competences
Module 1 Understanding entrepreneurship in eco-farming	<ul style="list-style-type: none"> - Knowledge about eco-farming practices in the world and European Union countries - Knowledge about the definition of entrepreneurship - Knowledge about the solution for problems in eco-farming 	<ul style="list-style-type: none"> - Ability to implement actions required in eco-farming activities - Raised level of understanding the concept of entrepreneurship - Awareness how to provide solutions for problems in eco-farming - Improved problem solving skills 	<ul style="list-style-type: none"> - Improved ability to deploy the concept of eco-farming - Improved ability to apply entrepreneurial skills in eco-farming - Improved ability to solve problems in establishing eco-farming business
Module 2 Entrepreneurship dynamics	<ul style="list-style-type: none"> - Knowledge about the foundation and establishment of entrepreneurial eco-farming facilities - Knowledge about the development of entrepreneurial enterprises - Knowledge about how to achieve continuity and sustainable growth within an entrepreneurial enterprise 	<ul style="list-style-type: none"> - Raised awareness of the establishment and foundation principles of an entrepreneurial enterprise - Improved planning skills - Improved managerial skills - Improved creative thinking skills 	<ul style="list-style-type: none"> - Ability to establish an own entrepreneurial enterprise - Improved understanding of the development stages of entrepreneurship - Raised entrepreneurial capability
Module 3 Entrepreneurial and managerial challenges in eco-farming	<ul style="list-style-type: none"> - Knowledge about the management of eco-farming activities to achieve sustainable businesses - Knowledge about how to reach and be in-line with new technologies and innovations in eco-farming - Improved awareness about the trustworthiness and respect in business - Knowledge about long-term planning in eco-farming entrepreneurial business 	<ul style="list-style-type: none"> - Raised awareness about the significance of managerial actions in entrepreneurial businesses - Ability to create long-term plans for the sustainable development of an eco-farm - Improved managerial skills - Improved entrepreneurial skills - Raised level of understanding the concept of trustworthiness and respect in business activities - Ability to promote and implement group entrepreneurship - Improved mediation skills 	<ul style="list-style-type: none"> - Improved practical abilities of the management of an eco-farm - Being able to practically apply improved managerial and entrepreneurial skills of the young entrepreneurs - Raised entrepreneurial capability - Raised managerial capability
Module 4 Access to finance and markets	<ul style="list-style-type: none"> - Knowledge about financing and marketing in eco-farming practices at national and EU levels 	<ul style="list-style-type: none"> - Ability to build up a successful business plan 	<ul style="list-style-type: none"> - Applying an improved entrepreneurial capability

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	<ul style="list-style-type: none"> - Knowledge about the funding possibilities for eco-farms - Knowledge about the way of conducting successful interviews with decision makers of funds, credits and/or bank loans - Knowledge about e-marketing challenges in eco-farming entrepreneurial business - Knowledge about management accounting 	<ul style="list-style-type: none"> - Ability to apply for funding, credits and/or bank loans - Improved communication skills - Awareness about the significance of marketing challenges in eco-farming - Improved managerial skills - Improved marketing skills - Improved entrepreneurial skills through e-marketing activities 	<ul style="list-style-type: none"> - Successfully addressing financial and marketing issues in eco-farming - Being able use funding opportunities with regards to establishing an eco-farm enterprise
Module 5 Recognition of prior learning, in-house further training provision and mentoring support	<ul style="list-style-type: none"> - Knowledge about recognition of prior learning (RPL), in-house further training provision and mentoring support at eco-farming entities - Knowledge about the stages of the mentoring process - Knowledge about the successful factors that will enable acquisition of further competences. 	<ul style="list-style-type: none"> - Raised awareness towards the concept of RPL, in-house further training and mentoring - Improved managerial skills - Improved skills as successful mentor - Improved communication and problem solving skills - Improved impact gathering and assessment skills 	<ul style="list-style-type: none"> - Ability to conduct RPL process, in-house further training and mentoring scheme - Ability to recruit and train new workforce - Ability to become a successful eco-farm manager
Module 6 Legislation in eco-farming	<ul style="list-style-type: none"> - Knowledge about legislation of eco-farming products - Knowledge about certification of eco-farm products - Knowledge about how to apply for certification of eco-farm products at national level - Improved understanding of legislation and certification bodies of eco-farming 	<ul style="list-style-type: none"> - Being able to identify relevant legislation and certification of eco-farm products - Raised awareness towards the significance of certifying eco-farm products 	<ul style="list-style-type: none"> - Ability to apply for certification of eco-farm products - Improved competence in applying for certification of eco-farm products
Module 7 Social entrepreneurship	<ul style="list-style-type: none"> - Knowledge about the definition of social entrepreneurship - Knowledge about the implementation of social entrepreneurship in eco-farming - Knowledge about how to establish and manage a social enterprise in eco-farming 	<ul style="list-style-type: none"> - Raised level of understanding the concept of social entrepreneurship - Awareness about the implementation of social entrepreneurship in eco-farming - Improved problem entrepreneurial skills 	<ul style="list-style-type: none"> - Being able to apply concept of social entrepreneurship to the own business

Conclusion

Within the ECOFAR project, one of the most stressed-on topics in the further sustainable development of the agri-food sector in EU is being considered: the development of the managerial and entrepreneurial skills of young eco-farmers through joint qualification curricula. Furthermore, besides the joint VET curriculum, the current qualification profiles and assessment standards are elaborated in accordance with ECVET learning outcomes. The outputs are prepared in English as well as in the partner languages (Bulgarian, Greek, Slovenian and Turkish). This will enable the dissemination and applicability of the developed training curricula in the partner countries as well as throughout EU. Detailed information can be found on the website: <https://ecofarm-manager.eu>.

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