

## ADULT LEARNING IN THE FIELD OF AGRICULTURE

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### **Abstract**

*In Romania, the used agricultural area is operated by approximately 3.4 million farmers whose main feature is the fact that they have the lowest level of professional training among all European Union countries. Many of these farmers lack basic skills that are considered essential for a modern agricultural economy. The main objectives of this paper are to analyze the current conditions and the main trends in the field of adult education in the agricultural sector and to identify its strengths and weaknesses. The analysis is centered to the current European context of lifelong learning and includes: statistical benchmarks, legal and institutional framework, adult training programs, funding sources and education and training providers. The working methodology targeted three stages: identification of documentary sources and collection of data and materials for analysis; statistical processing and analysis of data and information; information synthesis. The main conclusions of this study show that Romania has a well-established legal and institutional framework for adult learning with a diverse range of funding sources for the vocational training courses. In agriculture, the main vocational training providers are the county agricultural directorates/public advisory and extension service, private firms, agricultural faculties and non-governmental organizations. However the assessment of adult vocational training quality is facing the lack of a regulatory and implementation framework has led to the discrediting, to a large extent, of this type of training.*

**Key words:** adult learning, agriculture, vocational training programmes

### **INTRODUCTION**

With an agricultural area of 14.63 million hectares, out of which 64% arable land, Romania is an important agricultural country (ranking 6<sup>th</sup> in EU 28). Significant human resources are involved in the farming activity (23% of total employed population), this share placing Romania on a top position in the EU member states (yet on a downward trend). The population working in agriculture is old aged (about 40% over 50 years old) and has a low level of school education (more than 55% with primary and secondary education) (NIS, 2020) [15].

The utilised agricultural area is operated by 3.422 million farms, representing about one third of the total number of farms in the EU 28: 99.24% of these are individual farms without legal status, with an average area of 2.04 ha, operating 55.40% of UAA. Although Romania has the greatest number of farmers in the EU member states, these farmers have the lowest vocational training: 96.40% have

only practical experience, 3.13% basic agricultural training and only 0.47% have full agricultural training (Eurostat, 2020) [7].

The Romanian farmers have the lowest training level in the EU, thus having the highest level of exposure to labour market volatility and to low incomes. Many farmers are lacking basic skills, which are considered essential for a modern agricultural economy. It is true that in a world increasingly characterised by important/radical technological changes, it becomes less and less likely for the Romanian farmers to rely only on the skills and knowledge they have acquired from their predecessors or from school. In addition, the development of agriculture involves complex issues that require not only knowledge in this field, but also in related fields, such as technology of information and communications, environmental protection, food safety, etc. These are the areas mostly exposed to innovation. It is obvious that formal agricultural education, regardless of level and

involved institution, is not sufficient to support a competitive agricultural sector. As a reaction to these challenges, the concept of lifelong learning has been promoted (Muenchhausen & Haering, 2012; EPRS, 2017; Barrantes & Yagüe, 2015) [13, 6, 2]. A key component of lifelong learning is adult learning. In the agricultural sector, adult learning is particularly important, as a higher number of workers who lack specific agricultural training are involved in the farming activity. Thus, adult learning targets three distinct sets of priorities in socio-economic development: needs and objectives of individuals, needs and objectives of institution and needs and objectives of society.

The farmers can follow a variety of paths in the field of education and vocational training beyond the formal system. For some people, the decision to return to education and vocational training is a difficult one: it is therefore necessary to use different approaches that offer participants the most flexible ways to participate. These may include formal, non-formal and informal learning, so that farmers can become involved in training or retraining programmes to improve their work and life opportunities, in general (MNE, 2015) [12].

## MATERIALS AND METHODS

The main objective of this paper is to present the current conditions and trends in adult learning in the field of agriculture. The analysis is circumscribed to the current European context of lifelong learning and it includes: statistical benchmarks, legal and institutional framework, adult training programmes and funding sources, education and training providers, possible data on the efficiency of the existing system. We identified a series of expected educational needs/fields/themes. The working methodology targeted the following stages: i) identification of documentary sources and collection of data and materials for analysis; ii) statistical processing and analysis of data and information; iii) information synthesis.

## RESULTS AND DISCUSSIONS

### *Adult learning: statistical benchmarks*

The agricultural production conditions are changing fast due to urbanization, growing inequalities, human migration, globalization, change of food preferences, climate changes, environmental degradation, etc. Farmers must adapt their production and management systems to maintain and/or increase the competitiveness of their farms. Innovations are expressed in structural changes (farm size, cooperation, land ownership, labour force, own and/or loan capital, infrastructure, market structure) and in agricultural practices (intensity, productivity and specialization / diversification of existing systems, new products and technologies, innovations in management) (EC, 2017) [5]. The agricultural knowledge and information and the learning ability are prerequisites for successfully coping with these changes. Adult learning, as we have already specified, brings considerable benefits to people, to companies and to the entire society. Despite these benefits, the European Union is far from reaching the 15% target it has set for the year 2020.

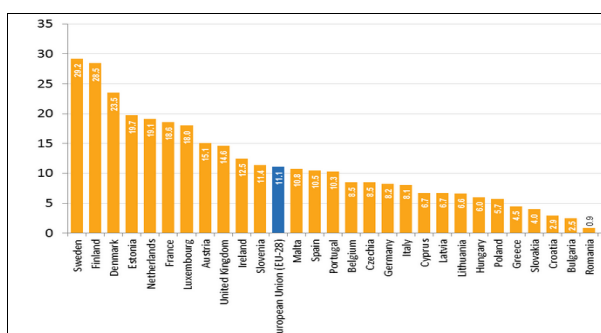


Fig. 1. Adult participation in learning, 2018  
 Source: Eurostat, 2018 [8].

The progress is even lower in Romania's case: participation of only 1%. Reaching the European benchmark for adult learning has been limited due to weaknesses in current policies implemented, both in the member states and at EU level (NIS, 2008) [14]. Effective policy actions are needed to correct and improve this situation: diversification of learning opportunities, fully or partially funded by governments; initiation of actions

to increase the availability of learning (both formal and non-formal, both at and outside the workplace); promoting actions that provide adequate learning opportunities for adults with specific needs (for instance, to be able to exercise a certain profession or to qualify); actions to increase employers' motivation to train and develop their employees, as well as the motivation of adults themselves to take up available learning opportunities, etc. (Grujika, 2016) [9].

An analysis of training hours, by field of study, reveal that Romania is above the European average in the case of four areas, including "agriculture, forestry, fisheries and veterinary medicine", in which case 11.2% of adults aged 25 – 64 years benefited from formal and non-formal education and training as against 1.8% at EU level.

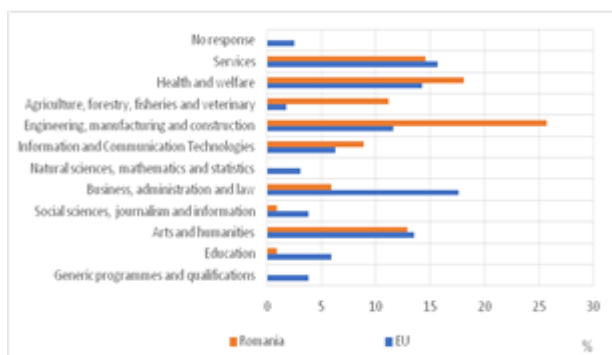


Fig. 2. Distribution of adult education and training by field of education in Romania and European Union, 2016 (% share of total hours spent by adults aged 25–64 on formal and non-formal education and training)  
 Source: Eurostat (trng\_aes\_174)

To foster competitive and sustainable farming at EU level, the Agricultural European Innovation Partnership (EIP-AGRI) was established, with the motto 'achieves more and better from less'. Its intervention fields target the following: i) promoting innovation and knowledge base in rural areas; ii) strengthening the links between research and innovation in agriculture and forestry; iii) promoting lifelong learning and vocational training in agriculture and forestry (EC, 2015) [4].

#### Legal and institutional framework

Romania has a well-defined legal and institutional framework, this regulatory framework targeting education,

apprenticeship, internships, volunteering, as well as adult vocational training. This represents an asset for the development of the adult training system. Romania has also operated a series of changes in the legislative and institutional system over time, following the changes produced in the EU strategy in the field of education, in general, and vocational training, in particular.

As it can be seen in Table 1, several institutions in Romania are involved in adult vocational training.

Table 1. The main institutions involved in adult vocational training in Romania

*Ministry of National Education (MEN) and Ministry of Labour and Social Justice (MMJS)* have overall responsibility for policy, legislation and strategies in education and vocational training based on national and European requirements.

*National Employment Agency (ANOFM)* is a public institution of national interest, with legal status, under the authority of MMJS. One of the main objectives of this institution is to boost employment and increase labour employment. The National Employment Agency applies the policies and strategies on labour employment and vocational training of persons looking for a job. It subordinates 42 county agencies in the structure of which there are 23 vocational training centres and 8 regional adult vocational training centres;

*National Qualifications Authority (ANC)* designs and implements the methodological framework necessary for the development of the national qualifications system. The sectoral committees are social dialogue structures, coordinated by ANC, and have representatives in the National Qualifications Council, an advisory body at ANC level. Since 2013, sixteen sectoral committees have been established that are fully operational, having representatives of employers, trade unions, professional associations, vocational training providers, ministries and NGOs as members. The main roles of these committees are to validate the qualifications and associated standards, as well as to develop the training, evaluation and certification framework.

*National Agency for Community Programmes in the Field of Education and Vocational Training* – in charge of the management of *Erasmus +*, a new EU programme for education, vocational training, youth and sports for the period 2014-2020 replacing several EU programmes and covering all the sectors of education.

Different ministries or central / sectoral authorities are responsible for the organization / approval of different adult vocational training programmes (Ministry of Agriculture and Rural Development in the case of agricultural training).

Source: MNE, 2015 [12].

However, efforts are not well coordinated and the process is not sustained or comprehensive enough. The responsibilities are divided between different ministries and institutions.

### ***Targeted groups/beneficiaries***

According to the Romanian legislation into effect, adults are defined as persons aged at least 16 years (15 years with the consent of their parents). These can establish an employment relationship and participate in vocational training programmes. The access of adults – employees or unemployed – to vocational training is a right guaranteed by the Labour Code. In fact, the unemployed are obliged to participate in vocational training programmes, at the recommendation of local employment agencies where they are registered, otherwise unemployment benefits are withdrawn.

Romania has made significant efforts for adult training, but in practice adults' participation in education and training is quite limited and somewhat unbalanced.

### ***Vocational training programmes***

Adult vocational training is achieved through:

- authorised vocational training programmes, organised by authorised vocational training providers (for levels 1-5 according to CNC);
- evaluation of competencies acquired in ways other than formally, through assessment centres of competencies obtained in other ways than formally (for levels 1-3, according to CNC).

### ***Vocational training through accredited training programmes***

The accredited adult vocational training programmes can be organised for:

- occupations* – according to the Classification of Occupations in Romania (COR) (approved by MMJS and NIS);
- qualifications* – according to the List of Qualifications (approved by MMSJ and MEN);
- key competencies* – common for several occupations (from the list approved by ANC, based on the 8 European key competencies).

The occupations and qualifications are described in terms of competency by occupational standards or training standards. These standards are designed by experts in

each sector of activity and are validated by the sectoral committees and approved by ANC.

Adult vocational training is achieved through the following organization forms:

- initiation* – acquiring of one or several competencies specific to a qualification according to the vocational training standard;
- qualification, requalification* respectively, represents vocational training that leads to the acquisition of a set of professional competencies that enable a person to carry out activities specific to one or several occupations;
- refresher training or specialisation* aims at developing or supplementing the knowledge or skills of a person who already has a qualification.

Participation in authorised vocational training programmes is completed by passing a graduation exam. Training completion requires the acquisition of graduation or qualification diplomas with national recognition and/or certificates of professional competence.

### ***Evaluation and certification of professional competencies acquired in ways other than formally***

The evaluation and certification of professional competencies obtained in ways other than formal ones (either on the job or in the family or in the spare time) is based on the occupational standards and should provide the guarantee that the certified person has the necessary knowledge and skills to carry out the activities described in the standard.

This type of evaluation is made in professional competencies assessment and certification centres authorised by ANC.

The challenges related to the assessment and certification of professional competencies acquired in non-formal and informal contexts are related to the administrative capacity of these centres. The evaluation and certification services are provided by ANC accredited experts. The professional competencies certificate obtained following this type of evaluation respects the regime of study documents in Romania and it is recognised both in Romania and in the EU member states. The professional competencies

certificate is the equivalent of qualification certificate.

#### Apprenticeship at the workplace

Apprenticeship is vocational training at work. It is organised for the qualification levels 2, 3 and 4 established by the legislation into effect and for the occupations included in the classification of occupations in Romania, for which vocational training and occupational standards respectively exist. Apprenticeship promotes the active involvement of social partners in the design and implementation of on-the-job learning. The number of apprenticeship contracts has not been encouraging in previous years, and out of this reason, it is considered that increasing the amounts offered to employers could stimulate them to hire inexperienced people who want to participate in vocational training programmes.

#### **Funding sources**

The most important funding sources for the participation in adult vocational training are the following:

Public funds – on the basis of the Labour Code, public institutions must draw up annual vocational training plans for employees and implement these plans. The financial support of these plans is made according to allocations from the state budget.

Table 2. Vocational training of employees in APIA- Agency of Payments and Interventions for Agriculture

*APIA, in the Human Resource Strategy for the period 2015-2020, has set as main objective the development of the human capital of the institution. This objective will be reached in two stages. In a first stage, the focus is laid on providing vocational training programmes that will meet the immediate labour training needs for the tasks assigned to each employee. The second stage aims to meet the vocational training needs of staff and strengthen the acquired skills, on the long term.*

Source: APIA, 2014 [1].

In the case of the unemployed, an important source for funding the vocational training measures is the unemployment insurance budget. In this case, the courses are organised by ANOFM through its county units. In the field of agriculture, the participants obtain certificates of qualification, such as: agricultural worker, zootechnical worker,

agricultural mechanic, field crop equipment operator, etc.

European funds: Romania has benefited from pre-accession and post-accession European funds, for vocational training measures inclusively. For instance, before the accession to the EU, a series of Phare projects were carried out, through which both rural teachers and trainers for agricultural workers were trained. Prior to 2007, the year of Romania's accession to the EU, a series of bilateral vocational training projects were carried out with the Netherlands, Germany, United Kingdom, etc., targeting the ANC staff, members and experts of sectoral committees, human resources involved in accrediting vocational training providers, etc. Since 2007, the vocational training measures have become eligible through the European Agricultural Fund for Rural Development and the European Social Fund (in conformity with the Sectoral Operational Plan Human Resources Development).

Private funds: Private employers, according to the Labour Code, have the obligation to support financially the training of their employees. Yet, in practice, most enterprises do not allocate funds to support this activity. In the agricultural sector, there are also farmers who are willing to pay for acquiring new competencies and practical skills, for the development of their career or for their personal development. Usually, the persons willing to pay for their vocational training prefer to participate in training programmes offered by accredited training providers who issue national recognition certificates.

#### **Vocational training providers**

The vocational training providers for adults can be natural or legal entities, of public or private law, based in Romania, in the EU member states or in the EEA countries, regardless of their legal organization form. Depending on the type of vocational training programme, the authorised training provider can issue the following types of certificates: a) certificate of professional qualification – for qualification or requalification courses and apprenticeship at work; b) graduation certificate – for initiation courses and



internships, as well as for refresher or specialisation courses and internships. These documents are issued by the authorised institutions and have the status of study documents, being accompanied by an annex that stipulates the professional competencies acquired.

Providers of vocational training in agriculture. In agriculture, the main providers of vocational training courses are the County Agricultural Directorates, the private firms, the faculties with agricultural profile, the non-governmental organizations, etc.

*The county agricultural directorates /public agricultural advisory service* – are relatively new institutions on the vocational training market for farmers: since 2017, they have provided training courses for farmers. The courses are organised at the headquarters of institutions or in the territory.

Table 3. Types of courses provided by the public agricultural advisory service

*Qualification courses* – dedicated to persons with no vocational training or with a low level of knowledge. They target the following fields: agriculture, horticulture, livestock farming, agriculture mechanization, pisciculture, food industry, agro-tourism and other fields required. The main objective is to provide to participants knowledge and skills necessary in the implementation of modern technologies. The qualification courses are of standard type – with duration of 3 months and a total number of 360 hours, out of which 120 theoretical hours and 240 hours practical work. For the theoretical training, experts from agricultural chambers and research institutes and stations are involved. The practical training takes place on units with agricultural profile (private farms, didactic farms, didactic production workshops, processing units, etc.), which have the necessary endowments.

*Initiation courses* – organised for acquiring minimum knowledge and skills necessary to carry out activities in agriculture and related fields. They address mainly to farmers who wish to access European funds under NRDP measures, as well as to those who have already started an agricultural business with their own efforts and do not have the necessary training. The duration of these courses is minimum 150 hours (50 theoretical hours and 100 practical hours). The thematic targets: CAP 2014-2020; implementation of cross-compliance rules in support schemes and measures for farmers: agriculture adaptation to climate changes; attenuating the climate change effects on agriculture and countryside; utilisation of renewable energy sources; crop, livestock farming and primary processing technologies.

*Training courses* – intended, in general, for farmers wishing to obtain new information on technologies, legislation, financing programmes, scientific research results, etc. The thematic of this type of courses is established according to farmers' requests and the priority objectives of the Ministry of Agriculture and Rural Development (MARD).

*Refresher courses* – organised for improving the vocational training of advisors (addressed to the county and local experts). These benefit from periodical training courses on the new regulations in agriculture.

Source: MADR, 2014 and 2015 [10, 11].

The County Agricultural Directorates have taken over the vocational training activity from the County Agricultural Chambers which, according to the legislation into effect, began to be abolished starting with the year 2017 (Law 157/2016 and Government's Decision 860/2016).

During their operation period, the county agricultural chambers were authorised as vocational training providers in agriculture by ANC for the following types of courses: initiation, qualification, training, training of trainers and refresher courses.

The agricultural universities and faculties - provide in their strategies the development and diversification of adult training forms, post-graduation courses, continuous training, professional re-training, specialisation and in-depth training. Most agricultural faculties, alone or in partnership with private firms, farmers' associations, public institutions, etc., can be involved in farmers' vocational training.

The private firms – can provide vocational training service if they have included this activity in their constitutive act. Private vocational training providers can be the following: providers accredited at national level – issue national recognition certificates; accredited / authorised providers at sector level – deliver recognized certificates at sector level.

The agricultural input suppliers can also provide vocational training to farmers, while promoting the sale of their products. The vocational training activities are accompanied by technical assistance, documentation materials, practical demonstrations, etc.

Non-governmental organizations: Romania has a dynamic NGO sector. A report on this sector, published by the Civil Society Development Foundation in late 2015, showed that 48,586 non-governmental organizations were operating in Romania, out of which 10% in the agricultural sector. The agricultural NGOs mainly operated in the following sectors: livestock farming, agro-processing industry, food industry, arable crops, forests, soil and water protection and conservation (FDCA, 2017) [3].

There is not much information on the collaboration and cooperation in the field of vocational training provided by these organizations, as this is a relatively recent activity (it was initiated mainly with the emergence of the opportunity to access European funds).

## CONCLUSIONS

Romania has set itself the goal to increase the participation rate of adults (25-64 years) in lifelong learning to 12% by the year 2020. However, according to statistics, our country has one of the lowest participation rates (1%), below the level established at EU level (15%). This limited participation is due to the existence of the following constraints: i) insufficient and asymmetric information between the institutions involved; ii) low incentives to participate in vocational training activities; and iii) inadequate institutional capacity (WB, 2017) [16].

Romania has a well-established legal and institutional framework for adult learning. According to the legislation into effect, vocational training is organised both through authorised vocational training programmes, organised by authorised vocational training providers (for levels 1-5 according to CNC), and through the assessment of competencies obtained in ways other than formal (for levels 1-3, according to CNC). The authorization process is bureaucratic and time consuming.

There is a diverse range of funding sources for the vocational training courses: a) governmental funds: unemployment insurance budget – courses are organised by ANOFM through its county units; b) European funds – Romania has benefited from pre-accession and post-accession funds; c) private funds – funds provided by employers and private funds of farmers.

Any public or private institution with vocational training role, specified in its legal status, can provide vocational training programmes, but only the authorised institutions can issue national recognition certificates. In agriculture, the main vocational training providers are the county

agricultural directorates/public advisory and extension service, private firms, agricultural faculties and non-governmental organizations. The assessment of adult vocational training quality is facing the lack of a regulatory and implementation framework, which has led, over time, to the discrediting, to a large extent, of this type of training. Although mechanisms have been developed to certify the learning results in adult vocational training, their implementation has been deficient and does not ensure the system-level confidence in the quality of qualification certificates.

As regards the recognition and validation of the learning results acquired in formal and informal context, although a recognition and validation procedure has been developed, the institutional capacity for its implementation is still limited.

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