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Regional Professional Education in Agriculture and Rural Development Sector of Ukraine

Policy Brief



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Situation Analyses of Regional Professional Education in Agriculture of Ukraine

The national system of vocational education in agrarian sector is represented by a system of more than 300 institutions of different types which provide training on 19 professions. All institutions operate within a single state policy in the field of vocational education. On the one hand, it ensures equality of rights to vocational education, accessibility and opportunity to choose educational trajectories to obtain professions of different qualifications, social orientation of such education and openness of the VET system to innovations. On the other hand, the list of educational subjects, topics within them and the number of hours for study is typical within the country, limiting the possibilities for vocational education establishments to determine the directions of their activities.

Since 2015, the course of reforms to gradually strengthen the autonomy of vocational schools has been launched. Among others, it involves introduction of state standards for vocational education on the basis of a modular-competent approach. This approach allows to maintain close relationships with employers at all stages of the learning process and improve the content and volume of professional knowledge, proficiency, skills in response to changes in the relevant production industry and staff customers' proposals.

Despite the availability of vocational education, the number of students of vocational schools decreases annually. Only 14% of graduates receive vocational education, the rest focus on getting higher education. As a result, the ratio of the number of students of higher educational institutions and vocational schools is 6 to 1. More than 90% of senior pupils from rural schools do not intend to study and work in the agrarian sector.

The reasons for unpopularity of vocational education are:

- labour market state (the number of vacancies of skilled agricultural workers is the smallest among all professional groups (1% of all vacancies in 2017), and status in employment is the highest (44 persons per vacancy in 2017));
- artificially undervalued labour costs, the lack of decent salary, and the lack of opportunities for professional growth and career development;
- improper working conditions (outdated equipment at the enterprises, the lack of social package) and the lack of basic social infrastructure;
- low rate of job creation due to unfavorable investment climate, seasonal nature of many enterprises;
- lack of prestige among agrarian professions among young people.

The situation in the Ukrainian labour market of blue-collar occupation can be called paradoxical. On the one hand, the level of non-employment of vocational

schools' graduates is rather high and has an increasing tendency (10.4% in 2016/2017 against 6.6% in 2009/2010). On the other hand, the demand for blue-collar jobs has been dissatisfied for a long period. As of September 1, 2018 vacancies for blue-collar jobs of the agrarian sector accounted for more than 4% of all vacancies of the State Employment Service. And such professions as a farmer and a mechanic for repair of agricultural machinery and equipment are among the top 10 most demanded in Ukraine.

There has been a situation in the Ukrainian economy where the demand for agrarian labour professions is not satisfied at the expense of labour supply, which is being trained by national vocational education institutions. Modern system for training workers for agrarian sector is irrelevant and incapable of ensuring training of skilled workers in accordance with the socio-economic needs of the society.

Taking into account the trends of agricultural production reform in Ukraine, one can distinguish the following directions of content-methodological modernization of agrarian VET:

- providing knowledge on world trade rules, EU agricultural policy, development of skills in the field of productivity development and technical development, environmental safety, sustainable development;
- implementation of methods of forming a personality capable of choosing an individual educational trajectory, life-long learning, career development, entrepreneurship and self-employment;
- gradual reorientation from special skills to basic.

Stakeholder Survey

The survey in Ukraine on Regional Professional Education in Agriculture and Rural Development sector was conducted in August-September 2018. 225 representatives of public sector, education centers, business companies and 150 employees in agriculture/rural sector were interviewed. It was undertaken in 15 regions of Ukraine (Volyn, Zakarpattia, Ivano-Frankivsk, Kyiv, Kirovohrad, Lviv, Odessa, Poltava, Rivne, Ternopil, Kharkiv, Kherson, Khmelnytskyi, Cherkasy, Chernihiv). 32,4% of respondents from the first group belong to agriculture enterprises, 32,4% - to public sector, 30,7% – to education centers, 4,5% – to non-governmental sector. 47.3% of respondents from the second group are alumni of agriculture; 37.3% are students of agriculture VET institutions, 32,4% - to public sector, 30,7% – to education centers, 4,5% – to non-governmental sector.

The key findings of the survey in Ukraine are the following:

The activity of VET institutions forms an adequate labour supply in agricultural sector, but the quality of training programs needs to be improved taking into account the needs of employers. Students and graduates appreciated the quality of training programs (the sum of the highest ratings was more than 60%), while almost 40% of employers represented average marks, and about one third of them gave high and low marks.

Students and graduates of vocational schools highly appreciate vocational education institutions according to the criteria of educational and methodological support, creation of conditions for professional skills development, and effectiveness of teaching methods. Positive characteristics of agrarian vocational schools were also the lack of barriers to entry, acceptable level of training costs, professionalism of teaching staff. In general, assessment of educational process by the proposed criteria showed that the respondents tend to highly evaluate their own educational institutions. According to all criteria, the sum of the highest marks ("5" and "4") exceeds 50%. The criterion related to practical aspects of mastering speciality received comparatively more negative reviews (the sum of marks "1" and "2" makes 23.3%). Students gave high marks to professional knowledge of teachers, their communicative skills and practical experience.

Despite the professionalism of training, employers and graduates point to problems in recruiting and employment in agrarian sector. Almost half of the survey participants (47.6%) from the list of employers called the search for skilled workers a difficult task, of which 20.9% rated it as "very difficult". Despite more optimistic attitudes of students and graduates (46% of the interviewed are sure they do not have job search problems), 22% of respondents indicated significant difficulties in job search in agricultural sector.

Graduates of agricultural vocational schools have a sufficient level of theoretical training, but little practical skills; they are not sufficiently initiative and motivated. According to employers' estimations, the two most acute specific problems with graduates are: lack of practical skills (62.2% of respondents); lack of initiative (53.8%). Also, problems of lack of managerial skills (32.4%), knowledge of foreign languages (28.0%) and special professional skills (23.1%) are quite acute. During staff selection, most representatives of enterprises and organizations face lack of motivation to work in rural areas (69.8% of respondents). Students, in their turn, pointed to a lack of entrepreneurial skills (12.7%), skills of working with modern equipment (12.0%), and advanced technologies (10.7%).

Since practical skills are determined by the greatest benefit of vocational training, students and graduates are particularly concerned about issues of irrelevant training programs, lack of practical training, outdated material resources. Almost a third of the respondents (26.7%) included practical skills in specialties in the list

of the most useful things they learned in a vocational education institution. At the same time, according to the respondents, the most acute problems related to effectiveness of vocational and technical education institutions are: outdated educational base and lack of necessary educational materials (28.0%); lack of practical classes (16.7%); unprofessional and non-motivated teachers (14.7%); noncorrespondence of training program to the needs of the modern labour market and agribusiness (12.7%).

According to graduates, preconditions for success are further vocational training, study of foreign languages, specific technologies in the field of agribusiness, basic concepts of finance and management. 48.7% of the polled students are convinced of absolute importance of continuing vocational training, while 38.6% of respondents call continuing education to be of some importance. Only every eighth participant in the survey (12.7%) does not see the need for further acquiring professional knowledge. All the suggested topics of additional training were considerably in demand among the respondents. The need for studying foreign languages (the sum of grades "5" and "4" – 72.7%) was considered relatively more important for success in agrarian sector, and the knowledge and skills in the sphere of marketing and sales (60.0%) became even less interesting.

Having logistical support and current requirements for training programs vocational schools do not have the capacity to prepare labour personnel with the expected level of practical experience in the field of modern agricultural technologies, equipment and machinery. According to the surveyed representatives of business, public sector, management of educational institutions, the three most demanded professional skills in agriculture, which are provided partially or don't provided at all, are: practical knowledge of the latest technologies (21.3%); practical skills (19.1%); management and doing business skills (15.1%). All survey participants pointed to the need for updating training programs. 42.2% of respondents supported increase of practical component in training, and 48.0% – study of specific agricultural skills. 70.0% of students and graduates supported increase of practical component in training. They also ranked highly rationale for introducing issues of improving the system of counseling and employment assistance (47.3%), language skills (44.7%) and specific skills related to agriculture development (40.0%) into training programs.

Agrarian business representatives are not actively involved in the process of training specialists; they do not have systematic cooperation with vocational schools, which negatively affects the level of attraction of students to apprenticeship and its quality. Assessing the level of cooperation between business sector and vocational schools and educational centers in attracting interns, two-thirds of respondents (67.6%) noted that such cooperation is limited to periodic admitting trainees by business companies. Another 15.5% of respondents said that business does not cooperate with practitioners. Only one in

six respondents (16.9%) calls such cooperation a close one. The result of this situation is the fact that almost a third of the polled students and graduates of agrarian vocational schools did not have apprenticeship or take trainings. Less than half of those who had apprenticeship called it useful (47.3%). Every ninth respondent (10.9%) stated that apprenticeship was merely formal and did not provide practical experience.

Business doesn't have enough motives for cooperation with educational institutions in preparation, recruitment and staff development, which adversely affects market saturation by skilled personnel. The most significant reasons why business companies are not interested in attracting trainees from vocational schools include:

- lack of employment period and experience (21.8%);
- low level of theoretical knowledge and low qualification of trainees (17.3%);
- lack of desire and / or motivation for business companies to perform tutorial functions (14.2%);
- low motivation of trainees to work (12.9%);
- reluctance of business to finance trainees (12.0%).

This leads to sporadic nature of interaction between business and educational institutions in recruiting (70.4% of the polled stated that fact) and occasional nature of cooperation between business and educators in skill improvement issues (only 15.1% of respondents consider such cooperation to be regular). Every tenth respondent (10.6%) is convinced that there is no interaction between business and educational institutions for further training.

State programs for development and support of education in agrarian sector are assessed as less effective than international donor programs. The number of critical assessments ("5" and "4") or 43.1%, which state programs received, is twice as high as positive ones. Effectiveness of state programs aimed at development and support of education in agrarian sector was highly ranked (marks "1" and "2"), only by 20.0% of respondents. One third of respondents (36.9%) indicated the average efficiency of these programs. Instead, in assessing effectiveness of international donor programs aimed at developing / maintaining education in agrarian sector, high assessments account for 30.0%. The share of critical assessments was 27.6%, and the average - 40.4%. According to the respondents, the areas which they considered to be the most important and effective for improving educational programs in agriculture both from government and international donor organizations are:

- provision of the analyzed educational institutions with modern equipment (15.1%);

- increase of practical training of students (14.7%);
- expansion of financing of educational institutions (14.7%).

The level of awareness about availability of international cooperation and low degree of student involvement in such projects do not allow assessing adequately their effectiveness in Ukraine. Almost half of respondents of the first group (47.6%) do not know about existence of international cooperation projects on exchanging students, teachers, implemented by the Ukrainian educational centers in agricultural sector. Only one of eleven students and graduates (8.7%) participated in international exchange programs.

Preserving the current situation in the field of professional agricultural education, given the expected growth of agrarian business in the country and opportunities for graduates to work abroad, threatens a shortage of skilled labour in the near future. More than 2/3 of respondents (68.0%) are convinced that demand for labour in agriculture will grow, another 18.7% forecast stable demand. Only 13.3% of the survey participants pessimistically assess the prospects for changes in labour demand in agricultural sector. At the same time, during 2010-2017 the number of pupils in vocational schools decreased by 37.9%. Another unfavorable, from an employer's point of view, tendency to increase the disproportion between the number of people who acquire blue-collar occupation and receive higher education remains unchanged: the number of students who studied in vocational schools, decreased by 1.5 out of 96 people in 2010 to 64 - in 2017 per 10,000 population. Higher education programs are the least in demand among respondents (the sum of answers "slightly needed" and "least necessary" is 30.7%).

Conclusions and recommendations

Vocational education is a core element of national economy, aimed at providing skilled workers according to the needs of the country's agricultural sector. Due to the relatively short terms of training, the focus on formation of skills necessary for practical activities, this level of education is especially valued by employers. However, the potential of vocational training in agrarian sector is not fully used nowadays. Its functions in forming and developing professional competencies ensuring competitiveness and its mobility in labour market, and career growth fail. This is confirmed by a paradoxical situation, when a significant percentage of graduates of vocational schools can not find a job given a sufficient number of vacancies for agricultural blue-collar occupations.

Problems of agrarian vocational education represent a polyhedron, formed on the crossroads of interests of students, senior and teaching staff of educational institutions, employers and other stakeholders. The results of the survey showed that the quality of practical training of vocational schools graduates is a cornerstone. Neither students nor employers are satisfied with its level for today. The situation is complicated by irrelevant training programs, outdated material resources, lack of necessary training materials, and insufficient motivation of teachers. The poor image of the VET system is an obvious and urgent stimulus for open cooperation and communication on collaborative work on partnership principles involving many stakeholders.

Solving these problems comes upon two interconnected barriers. On the one hand, permanent underfunding of educational institutions is not expected to be overcome in the near future. As foreign experience shows, the successful transfer of expenditure financing for labour personnel training in vocational schools from state budget to local authorities is possible, provided there is a multilevel financing, including well-established channels for attracting funds from engaged enterprises. On the other hand, business entities are little interested in active and systematic participation in training future staff because practitioners lack employment period and experience. It has led to a vicious circle.

Current programs for development and support of education in agricultural sector, both at national and international levels, cannot drastically improve the situation. Through lack of awareness and low degree of involvement in international projects, agricultural vocational schools lose the opportunity to improve training programs, improve material and technical resources, improve teachers' skills, and facilitate trainees exchange.

National systems of agrarian vocational education require reloading taking into account socio-demographic, foreign economic and sectoral trends. Otherwise, in the near future personnel shortage awaits the agrarian sector of the studied countries.

On the basis of the study, a series of **recommendations** was developed.

For authorities with appropriate power:

- to start transformation of traditional budget- and input-orientated financing models towards modern market-orientated and learner-based financing systems. This means focusing on a learner-based model as the main category of desired disbursement mechanism requiring a high degree of flexibility, sensitivity and specialization while, as far as possible, making use of existing infrastructure and resources under the above mentioned constraints. Revised policies and regulations should be integrated into existing VET system development processes, structures and projects, but more thought should be given to development of an information system for learners to enable them to make the right decision on how to use the new learner-based financing mechanisms.

The appropriate role of government in VET markets is to let private training markets work under the umbrella of public-private-partnerships. This might be relevant for VET programs where the private sector shows interest and where they do not engage the public sector. For agriculture – at first stage public financing should be prevalent, but since this sector is growing (and labour demand accordingly) gradually private sector's involvement also should be stimulated.

- In order to achieve this, it is expedient to use taxation and fiscal instruments (tax breaks, tax deductions, tax exemptions, deferral of taxes, state personnel training fees), as well as funding instruments (educational vouchers, education lending schemes, student loans, individual training accounts). It will encourage employers to invest more actively in the future workforce, be engaged in management of vocational education system and influence the direction of expending for staff training, and also increase access to high quality education for people with different incomes;
- to consider the possibility of consolidating agricultural professions and make appropriate changes to the state list of professions. This will increase the level of satisfaction of employers' requirements in skills and competencies of working with new technology, facilitate access to

- employment of agricultural workers, improve efficiency and competitiveness of enterprises and economy as a whole;
- when developing state requirements for vocational education content, the level of professional qualification of graduates of agricultural vocational schools, the main compulsory means of training it is necessary to take into account the need of including knowledge on world trade rules, the EU agricultural policy, skills in the field of productivity development and technical development, environmental safety and sustainable development in general professional competencies. It will ensure the ability of the agrarian VET system to respond flexibly and adequately to dynamic changes in the world economic space, and take into account new requirements for agricultural management;
 - to revise and modernize the current concept of an information system of labour market based on selection and use of diversified data sources (statistical and administrative information, enterprise research, graduate studies). It will allow to develop reliable information system of labour market of national importance. As a result it will improve the predictive function of multilevel system of managing vocational education. For business and public entities who take decisions as to funding, it will define priority VET sectors for financing and investment in education with relevant changing according to sectoral employment and market needs;
 - within the framework of communication strategy on vocational education to develop a plan for promotion of vocational education in agrarian sector. It is necessary to provide the possibility of partial financing of creation and broadcasting of advertising plots aimed at increasing the prestige of agricultural agrarian professions by employers. Broader implementation of vocational guidance system at all levels and further vocational training must also be ensured. It will open the way for motivation, substantiation and strong arguments for formation of a modern vision of agrarian vocational education.

For employers:

- to develop a framework action plan for improving the quality of vocational education services through a large-scale application of public-private partnership practices (sponsoring of individual educational institutions by enterprises, investments in training centers through state programs, organization of apprenticeship for practical experience and provision of production training). The knowledge and theory component is clearly the domain of the VET centers, but agribusiness companies could play a crucial role in terms of practical skills and

work experience component. With respect to efficiency increases in the delivery of VET programs, the workplace-based apprenticeships deserve special attention. This kind of cooperative training will be an excellent starting point for going into a closer relationship between VET centers and private sector in order to enhance the employability of VET graduates. A longer apprenticeship period will reduce the average training time spent in VET centers. As a consequence, recurrent cost per student borne by government will decrease and facilities can be made available for new learners, reducing the need for new investments in VET centers. For sure, such donor-supported initiatives should be based on a strong legislative framework and supported by financial incentives that will reduce barriers to private-sector cooperation and encourage it, in particular, to make financial contributions to vocational education system that will be useful to apply at the level of separate educational institutions. This will enable the development of new types of relations in the field of research and innovation and will gradually form the basis for creation of agrarian clusters.

For VET institutions:

- to establish cooperation with international and national funds for financial support for participation of students and VET teachers in international programs; to intensify the information campaign on possibilities for participation of students and teachers in international cooperation projects for exchange of students and teachers; to provide appropriate information and consultation support. This will allow students of agricultural vocational schools to acquire modern practical skills in agriculture, take industrial practice at advanced agricultural enterprises. It will allow teachers to use benchmarking of international educational experience for improving national systems of professional training of specialists in agrarian sector, develop and modify study programs, learning materials etc.;
- to implement methods of formation of a personality capable of choosing an individual educational trajectory, life-long learning, career development, entrepreneurship and self-employment. Inclusion of such training in the content of educational and production processes of vocational schools will allow to develop skills of adaptation in a dynamic professional environment, decision-making on professional future, readiness to compete and to be an active subject in the labour market, self-assessment of competencies, skills and abilities regarding performing professional activities;

- to develop flexible methods for recruiting students in order to attract rural youth, especially women, to study in agricultural education institutions. Especially it is important to do active work with rural population – to provide information about available education programs as well as offer specialized short-term practical trainings. Provision of more publicly available, relevant information about VET will allow both potential students and employers make more informed and rational decisions;
- to improve recruitment and skills development at all levels; create conditions for improvement of career perspectives and professional recognition. To maintain professional qualifications, teachers should attend relevant seminars and courses regularly, participate in meetings and conferences of national or international levels. It will facilitate the establishment of channels for advisory and technical support, information exchange, and improvement of administrative work. The prospective model of specialists' professional training in agrarian sector anticipates involvement of farmers, agronomists, representatives of agrarian products certification agencies, managers, marketers and other experts;
- to establish closer links with enterprises and employment services in order to meet the real needs of a region or a country through adaptation of training programs and teaching methods; business associations that focus on a specific sector, or groups of professionals who benefit from interaction with VET establishments, could be obvious partners because they have clearly defined knowledge and expertise on a given industry;
- to develop methods of extensional agrarian education, adapted to the needs of different target groups (seminars, trainings, consultations). Such methods should extend to continuing education and retraining, modular courses, distance learning and informal education. Providing expanded educational services to farmers and professionals involved in agriculture should be emphasized particularly. This will allow vocational institutions to independently plan and offer their educational services in adult education on the basis of studying demand and supply of a regional labour market.