

Professional Education in Central Asia

Practice-oriented Education and Training in Cooperation with Business

Context

Since nearly 30% of the labor force in Central Asia is still employed in agriculture, the processing of marketable foodstuffs plays an important role as a growth sector. Along with textile products, foodstuffs are among the product groups with the highest export growth. The need for training young people is correspondingly high - both in food processing and in related logistics sectors such as the procurement of raw materials, warehousing and distribution. Beyond this, there is also a high demand for qualified technical and managerial personnel in the logistics sector of all countries in the region. This applies to agriculture, transport & traffic as well as the entire industrial sector.

Our objectives

The capacities of professional education systems in Central Asia to provide qualified specialists and managers for economic growth sectors in the region are improved.

Our measures

The project promotes the modernization of professional education in Central Asia - as a model for the food processing industry and the logistics sector. The measures of the project aim at

- the introduction of international quality standards
- improved labor market orientation and integration of the business community into professional education and training,
- the establishment of dual approaches at various levels of professional education.

The approach of the project is based on two pillars: the promotion of reforms of the legal-normative regulatory framework for professional education in the partner countries and the development of employment-effective qualification offers in the areas of food processing and logistics.

Project name	Professional Education for Economic Growth Sectors in Central Asia
Commissioned by	German Federal Ministry for Economic Cooperation and Development (BMZ)
Project regions	Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan; the involvement of target groups from Afghanistan in the envisaged activities is also possible
Main partners	Ministries of Education and Science of the Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan; Ministry of Higher and Secondary Specialized Education of the Republic of Uzbekistan
Duration	06.2021 - 05.2024

In order to create the necessary legislative basis for a modern professional education system, the project advises the relevant ministries on the drafting of appropriate laws, regulations, etc. Particularly important in this context is the close cooperation with relevant partners from industry, i.e. professional associations and companies, which are systematically involved in the design of corresponding reform initiatives.

In addition, PECA uses cross-border cooperation as a resource to advance the modernization of the professional education system in Central Asia and to ensure its regional connectivity. National experiences in reforming educational standards or introducing dual education programs are presented and discussed in regional forums. The aim of this exchange is to strengthen mutual learning between actors in the professional education systems in the different countries, for example in the form of tandem learning partnerships.

PECA strengthens the capacity of educational institutions (vocational and higher education institutions, professional associations) to offer demand-oriented qualification programs for the food processing industry and the logistics sector. To this end, the institutions concerned are provided with (digital) teaching and learning infrastructure, their management capacities



L. to r.: Teachers from one of the Kyrgyz educational institutions in the laboratory for food analysis.

Laying of the foundation stone for the Education and Training Center for the Production of Dairy Products in Kara-Balta.

are improved, and teaching staff receive further training. The participating universities and vocational colleges will also receive technical advice on the introduction of new training and study programs and will be supported by the project in the quality assurance of their educational offerings – for example, through their international accreditation.

New dual educational programs for training qualified specialists in various areas of logistics are being developed and implemented in the field of “Logistics”. A bachelor’s program in logistics, already developed for four Central Asian universities, will be introduced at another additional institution in Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan. A regional fund for financing applied research is being created to encourage technology transfer between universities and the food industry. Consortia consisting of at least one university and one company can apply for funding for small research projects in food technology. Partnerships between Central Asian universities and European universities are initiated to ensure knowledge transfer in the long term, i.e., after the project is completed.

In cooperation with professional associations, PECA meets the demand for short-term qualifications for company personnel on two levels: on the one hand, through basic courses for low-skilled workers on topics such as food safety or on issues relating to the storage and distribution of goods. On the other hand, in-service training courses on “green” technologies in food production or on “green logistics” are developed and offered for specialists and managers. On the other hand, in view of the growing focus on “green” economy across Central Asia, the project supports the selected providers in developing and implementing a modular training course on “green” technology in food production and processing as well as “green” logistics for specialists and company managers.

Our results

As a result of close cooperation with enterprises, educational programs relevant to the food industry have been developed. Thus, national dual curricula “Food Technician” were developed and prepared for implementation by the pilot educational institutions in the partner countries at the secondary professional education level, and curricula (B.Sc, M.Sc, M.E., PhD) in the field of food technology were developed at the higher education level in accordance with German and European quality standards. National

cooperative curricula for the logistics sector have been developed and prepared for implementation in each country. A total of about 6,000 young people from Central Asia were enrolled in the TVET and higher education programs developed with project support and more than 500 program graduates were employed according to their qualifications.

In order to improve the framework conditions of national professional education systems, the national concepts for introducing or further developing dual SPE, containing recommendations for changes in the legislative framework, were submitted to the Ministries of Education of the project partner countries. As a result of the activities of the project’s national working groups, methodologies for developing professional standards and two professional standards for the food industry in each of the project partner countries have been adopted and approved by the relevant Ministries of Labor.

The construction of a training center for dairy products production began in the autumn of 2021 with the support of the project on the basis of Kara-Balta Technical and Economic College where a training and production workshop for brewing and its laboratory, laboratories in the areas of education “Technology of bread, confectionery and pasta” and “Technology of milk and dairy products,” as well as laboratories for sensor analysis and flour production were also previously equipped and prepared for theoretical and practical training. Thanks to the technical equipment, college students have the opportunity to learn by doing and thereby improve their chances of being employed and shaping their professional future.

The Centers for Technology Transfer, Education, and Entrepreneurship (CTTEE) established during past phases of the project in Kazakhstan, Kyrgyzstan, and Tajikistan were successfully integrated into the structure of partner institutions of higher education, which contributes to sustainable and effective cooperation between the private sector and universities. The Central Asian Internet platform of the technology transfer network was also created, where universities can publish their developments and industrial enterprises can place their requests for necessary technologies. In Kyrgyzstan, for example, scientists and students of Kyrgyz State Technical University developed a technology for producing milk-grain beverages and cream cheese. Subsequently, this technology was successfully transferred to a private enterprise with the support of the CTTEE.

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