

Professional Education and Training in Central Asia

Context

Agriculture and the processing of agricultural products play an important role for the economic and social development of Kazakhstan, Kyrgyzstan and Tajikistan. These processes depict the basic income source for the majority of the population. However, obsolescent production processes restrain the production of new highly qualitative and exportable food products. Food technology lacks qualified specialists in the food production companies. The necessary regional cooperation concerning such questions like the mutual acknowledgment of qualifications for labor market has been insufficient. Economic and scientific potentials of a possible cooperation have not been used as well. As the core problem, one must state that the further training of specialists and executive staff for the food processing industry is not comparable within the region and lacks international standards.

Objectives

The goal of Professional Education and Training in Central Asia program of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is to support its partners in improving the professional education in the food processing industry by making it regionally comparable and complying with international standards.

Benefits

The project takes place in selected regions of Kazakhstan, Kyrgyzstan and Tajikistan. The core areas of the project are four activity fields:

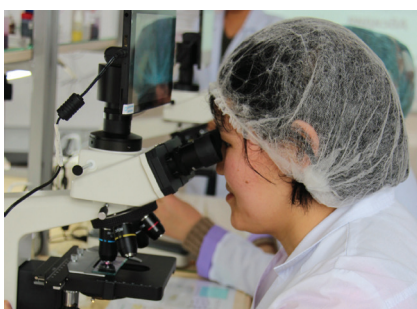
1. “Regional Dialogue” is a platform for an extensive exchange between political decision makers and educational institutions in three Central Asian countries. It aims at building educational

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Project region	Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan
Main Partners	Ministry of Education and Science of Kazakhstan, Ministry of Education and Science of the Kyrgyz Republic, Ministry of Education and Science of the Republic of Tajikistan, Ministry of Higher and Secondary Specialized Education of Uzbekistan
Duration	November 2016 – October 2019

partnerships and designing common solutions for academic mobility, adaptation and usage of regional educational standards, comparability of study and training programs, implementation of elements of the dual education and other topics in the field of professional education.

2. “Higher Education in Food Technology” is focused on developing and implementing study programs in food technology such as a Bachelor of Science, Master of Science and Ph.D., as well as a Master of Education for T-VET college teachers. All of these educational programs shall comply with international standards, such as the Bologna standard in higher education, as well as national requirements in order to allow mutual recognition and thus, regional exchange.

3. “Training of T-VET Teachers” is focused on enabling educational institutions to qualify T-VET teachers through further training in the area of specific didactics, modern pedagogics and practical oriented approaches (Elements of Dual Education). There is also a strong focus on training of production masters in private businesses



Left: Partner of the program during the training on food safety

Right: Participants of summer school in the framework of academic mobility

in order to combine practical and theoretical aspects of education in one competence based approach.

4. The fourth activity field “Cooperation with the private sector” is aimed at strengthening cooperation between educational institutions, business associations and food industry companies at the national and regional levels. This area of activity is aimed at strengthening existing forms of cooperation (such as business development, student internships and employment, joint research and commercial projects, technology transfer, etc.) among universities, colleges and food production companies. Our approach is to create sustainable, institutionalized Centers for the transfer of technology, education and entrepreneurship in partner countries. These centers act as consulting enterprises for business and academic environment. Centers have already established the first but strong links of cooperation with private companies and educational institutions, develop their business plans, take part in the promotion of the program (job fairs, seminars, conferences and study tours).

Results

Currently, all activity fields are building up their expected results on the achievements of previous projects that have been implemented since 2010. Within the framework of the “Regional Dialogue” activity field there has been a steering committee established. The committee will issue recommendations for regionalization, harmonization and standardization in professional education with focus on food technology, cooperation with the private sector and training of teachers. Regional and international cooperation has been initiated. Partner universities have signed MoUs for academic mobility. Since 2016, the first students’ exchange was organized between Universities in Kazakhstan, Kyrgyzstan and Tajikistan. These students deepened their theoretical knowledge and practical skills, for instance, on topics such as scientific basics of milk processing and microbiology. German interns studied at partner universities in Central Asia and developed new products. Regional dialogue and exchange does not only promote individual professional skills, but also serves for further cooperation to achieve common goals.

The “Higher Education in Food Technology” activity field distinctly increases the proportion of practical teaching components and improves the quality of teaching. New didactical principles are successfully applied by educationalists. Modern educational materials offer easier access to independent learning for students. Students are receiving an education that prepares them better for the regional and international labour markets. The program’s work

so far has resulted in an improved level of initiative among teachers, students and companies. In the future, further comparable study programs, based on international standards will be implemented, dealing for instance with topics such as food safety and a stronger focus on sustainability in food processing.

“Training of T-VET Teachers” significantly increases the proportion of practical trainings in the syllabus due to new developed curricula. New teaching approaches, modern pedagogics and didactics on an international level prepare students better for the demands of labor market and their future workplace. A new focus is the training of trainers within companies, in order to achieve a truly holistic approach of TVET teaching in the Central Asian food processing industry.

The activity field “Cooperation with the private sector” has already established numerous contacts between enterprises and educational institutions. Companies are increasingly offering internships and playing a more prominent role in teaching students, for example, participating in examination boards and developing new training programs. Students are increasingly choosing for their course and diploma papers relevant and practice-oriented topics. Educational institutions successfully offer such services as laboratory analysis of food products, development of new products and advising on food technology and safety. In turn, companies are increasingly aware of the need for close links with research and educational institutions.

With the support of the program, local enterprises developed and adapted to modern conditions modern tunnel solar dryers for fast and ecological drying of fruits and vegetables. These solar dryers are installed in the territory of universities and colleges and are widely used in production and educational purposes. The technology used is energy efficient, which makes it relevant in the context of the general shortage of energy supply in Central Asia. It is also a very suitable technology for the professional processing and processing of food products in the light of the growing demand for “green” economic models.

The component provides an interactive platform for the exchange of experience and information on the line of higher education - production, as well as training activities on innovative technologies for food production, modern standards of procurement and logistics, etc.

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