Support to strengthening the higher education system in Azerbaijan

Twinning project ENI/2018/395-401

Mission Report

Short-Term Mission on Activity 1.5. Provide recommendations for improvement of education standards for qualification for programmes in the priority areas (incl. legislative arrangements) with a view to describing achievements based on competences and skills, considering the AzQF

(September 23–27, 2019)

1. **Name and Function of the Expert:**

Full name of expert

Mr. Maris Klavinš, Latvia

Signature

2. Objective and Tasks of the Mission:

The mission is carried out within the framework of:

COMPONENT 1: **SELECTED NATIONAL EDUCATION STANDARDS ARE ALIGNED TO INCLUDE A COMPETENCE-BASED FOCUS**

Activity 1.5. Provide recommendations for improvement of education standards for qualification for programmes in the priority areas (incl. legislative arrangements) with a view to describing achievements based on competences and skills, considering the AzQF

Benchmarks for this activity are:

- **State standards for selected study programmes (Ecology state standard) are revised**, with a view to describing achievements based on competences and learning outcomes, considering AzQF;
- **Other relevant documents/ methodology materials are prepared**.

3. Time schedule of the mission:

Date and Time	Activity
Monday 23rd of September 2019	Meeting with the RTA Ms. Elizaveta Bydanova and Ms. Vusala Gurbanova. Discussions on the general concepts of the higher education system in Azerbaijan, use of best practices, working tasks during the mission, the form of the deliverables. Exchange of opinions on the expected recommendations to elaborate internationally compatible study program standard.
Tuesday 24th of September 2019	Meeting with the representatives of the Baku State University Tarana Aliyeva, Mahluga Yusifli, Akif Agbababli and others and discussion about the content of the standard for the Ecology (Environmental Science) study program. During the discussion the prospective changes in the study standard were analysed: strengths and weaknesses mentioned.
Wednesday 25th of September 2019	Work on recommendations and the standard for the Ecology (Environmental Science) study program.
Thursday 26th of September 2019	Exchange of the obtained experiences of the expert group. Discussion of the content of the study standard with the RTA Ms. Elizaveta Bydanova.
Friday 27th of September 2019	Final discussion on the results of the meetings during the mission. Presentation of the content of the elaborated study standard for the ecology (environmental science) as well as recommendations for further improvement of the study process at HEI and activities relevant for the Twinning project. Farewell.

4. Relevant Background Information/State of Affairs regarding the mission

1. Classification of Bachelor and Master level programs in Azerbaijan

2. Standards of higher education of Bachelor level in Biology, Ecology, Geography and other branches of education

3. Standards of higher education of Bachelor level in Physics, Foreign language teacher elaborated within the TWINNING project

4. Information about Universities offering education in Ecology in Azerbaijan

5. Decree of the Cabinet of Ministers "On the approval of the 'National Qualifications Framework for Lifelong Learning of the Republic of Azerbaijan"

6. Standards of higher education of Master level

5. Achievement of the Expected Results

Planned action was achieved. During the visit needed clarifications in respect to achievements of higher education in Azerbaijan were obtained and the optimal solution for further advancement of the education in the study branch Ecology was suggested. As the main achievement of the visit can be considered elaborated suggestions for development of competences-based education content in the field of Ecology (Environmental Science) stressing the aspects, study topics, learning outcomes, competencies needed in the labor market, corresponding to recent trends worldwide.

6. Unexpected Results

No unexpected results were obtained during the mission

7. Issues Left Open After the Mission

All planned issues were done during the mission

8. Recommendations (including recommendation for future missions)

1. Recommendations in respect to Classification of bachelor programs of higher education.

At present accordingly to the "New" classification of bachelor study programs of higher education Ecology belongs to group of "Natural Specialties" with a code 050504. For Master study programs it is defined as a new branch with code 060510 and includes topics such as "Methods of protection and restoration of environment, Environmental protection in field of agriculture". At the same time in other branches of education are defined "Environmental geology", "Environmental management and biological monitoring". So, the existing

classification of education field is not consistent and do net correspond to internationally accepted classifications, such as OECD, UNESCO education field classification. Accordingly to international classifications Ecology is just one branch of Biology.

It can be suggested to use consequently the term “Environmental science”, “Environmental management”, “Environmental technologies” etc. and to use the same classification principles of Bachelor and Master study programs.

2. Recommendations to develop competencies supporting ability to address and contribute at the solution of global environmental problems.

Contemporary society is faced to a number of problems equally important for any nation and individual. An example of such problems is climate change. Climate change is discussed at UN level is high in agenda for international organisations, but also each person should get some basic knowledge to be able to understand the actions to be taken, to mitigate and to adapt to climate change. For the University study program, this kind of knowledge, especially for Ecology (Environmental Science) study program such knowledge is essential and it must be transformed into competencies of the graduates. To other basic issues also the question on sustainable development, reduction of biodiversity can be mentioned. However, in existing standard the issues related to development of competencies, needed to address global environmental problems are nearly absent.

To improve the quality of education in the study program Ecology (Environmental Science) it is important either to offer new study courses or to integrate in the content of the existing study courses issues related to global environmental problem to support development of competencies, needed to address these problems at national level. The mentioned study global environmental problems include Climate Change, Sustainable Development challenges and others, as well as supporting tools, such as Circular Economy and others.

3. Recommendations in respect to infrastructure and staff capacity.

To ensure high quality of the study process, development of skills and competencies needed in labour market, the study program infrastructure and staff qualifications must comply with the expected study results. It means that students should have not only lecturing rooms, but also adequate infrastructure: laboratory facilities, software, access to scientific literature databases etc. Specifically for study program Ecology (Environmental Science) are needed up-to-date practical work laboratories, supporting capacity to provide training on air, soil, water pollution analysis, biological diversity evaluation, supporting research laboratories, computer rooms provided with software of GIS and remote sensing data analysis as well as providing possibilities to acquire basics of environmental modelling, rooms for workshops and group work, etc. Learners shall have access to local network, internet, databases of scientific literature, e-libraries and information search systems. Teaching staff should have possibility to be actively involved in scientific research (basic or applied), regularly participate in national and international conferences, have academic mobility possibilities, to publish their research in scientific journals included in major reference data bases as well as regularly communicate research results to local society.

To improve the quality of education, to provide for students the possibility to obtain competencies needed in labour market and research in the study program Ecology

(Environmental Science) it is important to heavily invest in the infrastructure of HEI as well as provide needed support to teaching staff.

4. Recommendations in respect to graduation requirements

An essential element of the study process is the test of the student competencies obtained during the study process. Commonly for many universities worldwide a significant element of the student competencies test is the public discussion of the graduation thesis (project etc) work, thus demonstrating the student maturity, ability to apply during study process obtained skills in praxis, ability to independent research, planning etc project and describe and analyse the obtained results etc. Discussion of the student graduation thesis (project etc) should comply with the academic integrity requirements and thus can be regarded as an essential student qualification, competence as well as study program quality test.

It can be recommended to include in the study program the Bachelor thesis work.

5. Recommendations in respect to development of study quality standards for master study programs

Studies at the Master of Science require intensive involvement of students in research work. This issue is yet more important as during the BSc studies, students do not have to elaborate their thesis work.

It can be recommended for development of the MSc study program standards to consider need to allocate significant time of the whole study process to student research projects

9. Acknowledgments (if any)

I acknowledge the support during the organisation of the visit as well as during meetings of Elizaveta Bydanova. I appreciate the openness and importance of fruitful discussions with Vusala Gurbanova.

Annexes

1. Appendix 1. Environmental science study content at University of Latvia, Latvia
2. Appendix 2. Links to information on environmental science study programs