

Overview of the assessment of 12 programmes in the study field of 'Ecology and Environmental Studies' at seven higher-education institutions in Lithuania.

The assessed programmes comprised six at Master level (Lithuanian university of Agriculture, Klaipeda university, Vilnius Gediminas technical university, Vytautas Magnus university and two at Vilnius university), five at Bachelor level (Lithuanian university of Agriculture, Klaipeda university, Vilnius pedagogical university, Vytautas Magnus university and Vilnius university) and one non-university programme (Utena College).

Further developments and improvements of the programmes are hindered by some serious structural problems. These are conditions in the higher-education system that jeopardise programmes and against which institutions have few if any means of defence. Hence they can be expected to affect other study programmes and all institutions to a greater or lesser extent. Actions at national level are needed to address these structural issues: *not necessarily in the following order*

1. The most significant structural issue is the need to improve the financing of University education and research. State financial inputs that find their way to faculties are generally restricted to salaries, and these are at a very low level. This causes staff morale issues and deters young and talented PhDs from continuing their careers in universities or research institutions. The situation also leads senior people in particular to assume more than one post, either in a second university or in a research institute, to gain an adequate salary level. This has the dual effect of diluting the contribution of those staff members to the development and maintenance of the study programmes and reinforcing a second structural problem.
2. This is the too-strong distinction between researchers and teachers that often leads to intolerably high working loads for "teachers". Scientific staff involved in higher education are often categorised as an elite (researchers) or non-elite (teachers), which is unhealthy. Institutes allied to universities could do more teaching and give others the time and opportunity to develop research strengths. (In summary, *the 'assessors' observed that the workload of teachers is clearly too high, meanwhile the scientific research activity is too low.'*)
3. A further general problem lies with the involvement of Lithuanian universities in the EU educational space. Many EU countries (and especially countries in the Baltic Sea region) are intensively implementing the restructuring of university education according to the principles of the Bologna declaration. Those principles direct attention to the concepts of study content and curricula, including the division of study content and progression between Bachelor and Master study levels. Adoption of the Bologna principles is important also to increase student mobility, not only between countries but also between types of institution, enabling students to change when it is appropriate. In Lithuania, the colleges are not incorporated and hence a non-university programme seems to be a dead-end for even the most talented students. They cannot progress to higher-level studies on the basis of their college programmes. The reluctance of Lithuania to embrace the Bologna principles is an important factor in the assessment of the 'Ecology and Environmental Studies' programmes.

The assessed programmes all demonstrated features that stem from the impact of those structural issues:

The study of environmental sciences in Lithuania's higher-education institutions is trammelled to a great extent by the designation and specification of the study field within which the programmes are located. The designation 'Ecology and Environmental Studies' suggests and emphasis on a subject that is itself only one of the environmental sciences. In practice, the broader subject is interpreted as ecology ('the study of organisms in their environment'). This, in turn, puts disproportionate and, at times, almost exclusive focus on the organism and its biosphere, rather than on the whole environment. Hence, the

physical environment (lithosphere, atmosphere, hydrosphere etc) is being studied far too little for any modern environmental programme. *Ecologists are very much in demand in both the state and private sectors, but the numbers graduating each year are quickly outstripping that demand and do not have sufficient knowledge and training in the wider environmental sciences.*

This is a very important issue. The need is for the broader discipline of Environmental Science(s) to be identified as the study field, embracing a number of core subjects and providing for a range of optional specialties. Integral to this development is the formulation of standards ('benchmarking' in UK and EU parlance) as guidelines for programme structure and content at Bachelor and Master levels, and providing for progression through the levels. In the absence of such guidelines, the content is understood differently by different institutions. This has given rise to the variety of names for the assessed programmes and divergence from what is internationally understood as Environmental Science (even "Ecology and Environmental Studies" as designated). The extent of that divergence is always considerable and in some cases reaches intolerable levels. The intention would not be rigid regulation, rather to secure a measure of core standardisation that would make the programmes sufficiently uniform but allow for flexibility to develop the specialties appropriate to the institution's strengths and location. *Embracing the Bologna declaration principles would help to focus what would be a major structural reform and curriculum review.*

Other concerns that commonly featured in the expert panel's assessments were:

1. Too little focus on environmental management and sustainable development;
2. Too much focus on examinations testing memory and too little on the assessment of knowledge and skills along with the development of broader transferable skills (especially advocacy skills – verbal reasoning in particular);
3. Lack of practice in almost all programmes;
4. Insufficient participation of social partners in the study process and curriculum review;
5. The standard of students' final projects (theses) is rather low. It is evident that in many case a high student/teacher ratio does not allow adequate supervision of the projects to a sufficiently high level;
6. Only a small proportion of teachers are sufficiently qualified as scientists. This is associated with a lack of research activity and low publication rate of papers in internationally recognised journals;
7. Teachers' scientific research is frequently not consonant with the subjects they teach;
8. Some institutions have started study programmes without having an adequate complement of appropriately qualified teachers, and without the resources for adequate staff development (research!) to address the issue satisfactorily;
9. The level of international exchange both of teachers and students is too low;
10. There is a great lack of material conditions for research by teachers and students;
11. In universities the majority of students lack motivation.

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