

ANNEX 1: SUMMARY

1.1. AIM OF THE EVALUATION

This evaluation assesses two projects: *Innovation of Electric Drives Education in Undergraduate and Graduate Studies at the Mongolian University of Science and Technology – Use of Mathematics Simulation in Electrical Engineering*, implemented by Czech Technical University (CTU) together with Mongolian University of Science and Technology (MUST) in Ulan Bator, Mongolia, and *Improving Quality of Higher Agricultural Education in Cambodia*, implemented by Czech University of Life Sciences (CULS) with Royal University of Agriculture (RUA) in Phnom Penh, Cambodia. Both these initiatives were implemented within the programme of *Placement of Czech Teachers to Developing Countries between 2012 and 2014*.

The aim of this evaluation is to assess their relevance, efficiency, effectiveness, impact and sustainability and additional criteria within the standard OECD/DAC criteria framework. The work also compares particular aspects of preparation and implementation of the two projects and suggests suitable implementation modalities. Based on these findings, the evaluation also issues indicative assessment of the programme as such.

1.2. SHORT DESCRIPTION OF THE EVALUATED INTERVENTIONS AND EVALUATION CONTEXT

The project of *Innovation of Electric Drives Education at MUST* was implemented in order to introduce two new courses into the undergraduate and graduate curricula of *Electric Power Supply* study programme. The immediate aim was to improve technical knowledge and skills of its students; at the longer-term level, it aimed to incorporate the new courses into standard curricula at School of Power Engineering (PES). As a result, MUST alumni were supposed to become more employable, especially in the area of international industrial companies in Mongolia.

The project of *Improving Quality of Higher Agricultural Education in Cambodia* aimed to improve quality of education, research and international cooperation at RUA. Targeted students and teachers were offered bloc lectures and a range of various extracurricular activities, such as Film festival, Career days and Agriculture fair. The project also included various forms of research support, most notably in the form of seminars for teachers. Moreover, the project also provided methodological and technical revision of study programmes and introduction of education evaluations. In the area of international cooperation, it included Summer school for Cambodian and Czech students and seminars informing about international opportunities.

The evaluation was carried out approximately two years after the end of implementation period of these projects. In the case of *Innovation of Electric Drives Education at MUST*, there was no following project implemented at the time of the evaluation research. In the case of *Improving Quality of Higher Agricultural Education in Cambodia*, the schools were cooperating on following interventions supported by CzDA as well as by other donors.

1.3. EVALUATION TEAM

The research was carried out by Evaluation4Action, a team of independent experts:

- Anna Kunová, MSc, evaluation team leader
- Ing. Jiřina Svitáková, PhD, MBA, senior evaluator, agriculture education expert
- Veronika Štěpková, MSc, local expert Cambodia
- Mgr. Klára Kočková, local expert Mongolia
- PhDr. Martin Buchtík, PhD tertiary education assessment consultant
- Veronika Zikmundová, PhD, Mongolia consultant

1.4. KEY FINDINGS AND CONCLUSIONS

Design and focus of the projects

The design scheme of *Innovation of Electric Drives Education at MUST* was simple and clear. Designated activities were adequate in relation to their outputs and outcomes; as a whole, the project was suitably

designed to its scope and size (3.3 mil. CZK). The focus on specific, clearly defined part of the MUST's programmes was assessed as effective. The solution the project offered was systematic – it introduced a long-term change rather than carrying out one-off activities – which we see as favourable design aspect.

The project of *Improving Quality of Higher Agricultural Education in Cambodia* was designed as an extensive intervention out of proportions of its financial allocation (2.5 mil. CZK); the design of the activities and outputs was not adequate related to its desired outcomes. The support was fragmented into a wide range of loosely related activities offered to four different faculties and the university as a whole. During the two years of implementation, there were nine separate missions to RUA. The project aimed predominantly on one-off activities without intending to introduce sustainable systemic change. Thus, this design and focus suggest potential limited success of the project as such.

Relevance

On the sectoral level, both of the evaluated projects were assessed as relevant to the Czech development cooperation strategic documents as well as to strategic materials of countries they were implemented in. The CTU-MUST project's activities were relevant to the broader development strategy of the PES; they were also aptly incorporated into curricula of *Electric Power Supply* (both undergraduate and graduate levels). The CULS-RUA project was relevant by its broad focus, however, relevance of its particular activities' content to the school's and students' needs was impossible to determine. Relevance of *Innovation of Electric Drives Education at MUST* was assessed as **high**.

The evaluation shows that the main factor influencing relevance in this respect is the level of implementer's knowledge of their partners' conditions and particular needs. In the case of *Innovation of Electric Drives Education at MUST*, such knowledge was based on needs identification carried out before the implementation period and also on pre-existent experience of cooperation. Within the project of *Improving Quality of Higher Agricultural Education in Cambodia*, the needs identification on the university level was based mainly on suggestions provided by the project team members. Relevance of *Improving Quality of Higher Agricultural Education in Cambodia* was evaluated as **rather high**.

Efficiency

Both innovated subjects and the MATLAB software course in the CTU-MUST project were assessed as conceptual, consistent and understandable by the expert panel. Alumni of the undergraduate course indicated they have obtained new useful knowledge; both of these groups describe the course as difficult. MUST teachers obtained relevant materials (textbooks, presentation slides, seminar protocols) and know-how (by participating at Czech lectures) necessary to continue in teaching the courses. Thus, we can conclude the outputs led to their intended outcomes. The efficiency of the project can be seen as **high**.

The most efficient activity of *Improving Quality of Higher Agricultural Education in Cambodia* was the Summer School as it presented the only comprehensive educational activity. Applying for a joint project (in the Erasmus Mundus scheme), as well as seminars on international opportunities, were assessed as efficient as well. On the other hand, this criterion was not fulfilled by bloc lectures, study material preparation and joint research initiatives. The reasons lie mainly in low intensity of these activities and vague connection of the content to particular needs of the school. In the case of research support, the main beneficent was the CULS. General activities supporting the university as a whole were implemented in a way that did not lead to efficient and sustainable results. Overall, we determine the efficiency of the project as **rather low**.

The best practice examples can be seen as:

- Inclusion of the project into the broader development strategy of the university (CTU-MUST)
- Intensive communication between project team and partner university representatives (CTU-MUST)
- Timely coordination of activities (CTU-MUST)
- Introduction of long term systematic change (CTU-MUST)
- Using both English and the local language (CTU-MUST)
- Practical process of fish collection (CULS-RUA)

Examples of bad practice were identified as:

- Carrying out school performance analyses without consulting the partner university staff (CULS-RUA)
- Vague coordination of scope and content of bloc lectures (CULS-RUA)

- Fragmentation of the support into many brief activities across several faculties (CULS-RUA)
- Using English without assistance provided in local language (CULS-RUA)

Effectiveness

In case of *Innovation of Electric Drives Education at MUST*, the intended outcomes were reached in adequate manner. The provided knowledge was highly relevant to industrial practice which can be illustrated by an internship offer by Ulaanbaatar Siemens branch to the alumni. However, direct immediate rise in employability could not be proven. After the changes introduced by the project, the PES obtained ASIIN (Accreditation Agency for Study Programs in Engineering, Informatics, Natural Sciences and Mathematics) and European Accredited Engineer (EUR-ACE) Master accreditations and also adopted European Credit Transfer and Accumulation System (ECTS). The overall effectiveness was assessed as **rather high**.

In case of *Improving Quality of Higher Agricultural Education in Cambodia*, the project reached its intended result in the area of international mobility; other three outcomes were not met. Thus, the objective of employability increase was not met. The schools are now cooperating on another project funded by the Czech Development Agency (CzDA) and another multilateral project in the Erasmus Mundus scheme. The overall effectiveness is considered as **rather low**.

Impact

As the project of *Innovation of Electric Drives Education at MUST* reached its targets in terms of outcomes - and its design was realistic – we can assume that it contributed to its goal. However, the extent of this contribution **could not be determined**.

Improving Quality of Higher Agricultural Education in Cambodia did not reach three out of four of its outcomes; its only successful part in this regard involved enhancing international cooperation, its contribution to its designated goals is thus very limited at best. Due to inaccessibility of data necessary to prove this, we conclude that the impact **could not be determined**.

Both of the project somehow supported groups that originally were not mentioned in the project documentation – MUST alumni (by distributing technical dictionary among them) and CULS students (by providing them with opportunity to gather exclusive data).

Sustainability

Activities of *Innovation of Electric Drives Education at MUST* were designed to introduce a long-term systematic change which would sustain it after the end of the implementation period. The sense of ownership among the MUST staff can be seen as strong; the PES representatives are keen to continue in introduced courses. However, the sustainability of *Innovation of Electric Drives Education at MUST* was assessed **could not be determined** as it was impossible to measure the level of its impact.

In the case of *Improving Quality of Higher Agricultural Education in Cambodia*, the sustainability was not seen as an important concern as the project was immediately followed by another one consisting of very similar content. It thus **could not be determined**.

Assessment of Placement of Czech Teachers to Developing Countries¹

We believe the programme as such faces a systematic problem lying in the low level of relevance to the interests of its potential implementers. The purpose of universities – unlike development oriented non-governmental organizations (NGOs) – does not consist of implementing projects in developing countries, but in providing education and leading research. The only tangible benefits implementing schools can gain out of the project are non-systematic or non-inherent in the programme, such as gathering primary data for own research, opportunity to build cooperation within another framework or a chance to offer interesting international activities for their own students. While some of these benefits enhance the planned impact for the benefactor, other may cause a situation where the implementer's capacities are not fully used. One of the potential solutions may lie in adjusting the programme to the form more common within the university cooperation schemes. This would mean supporting symmetrical, partner or joint activities, such as

preparation and implementation of a joint course or students exchanges. This may increase the motivation of potential implementers in a way that does not limit the benefits for the partner university. Ideally, the programme should support the universities in building long-term partner cooperation that would go beyond this programme – both in scope and content. Such cooperation may take the form of so called “strategic partnership” (common framework for inter-university cooperation of Czech schools) and incorporate various agendas.

Strengths and weaknesses of tertiary educational practice in Mongolia and Cambodia are of long term and structural; we can thus assume that the level of relevance at the general level will remain stable in the upcoming years. In case of Mongolia, we would like to point at its position among the middle-income countries, which brings decrease of necessity of development cooperation in general. Overall, we recommend to proceed with the programme – in the broadened form suggested above.

1.5. RECOMMENDATIONS

Sectoral level	Importance²	PCM	Addressee
1. Support implementation of systematic and intensive project activities	1	identification / formulation / implementation	CzDA
2. Inform potential implementers on the risk of negligible support in their projects	1	identification / formulation	CzDA
Systematic and procedural level	Importance	PCM	Addressee
3. Carry out an online survey among universities	1	programming/ identification	MFA / CzDA
4. Include a description of desirable outcomes and impacts of submitted project proposals	2	programming/ identification	CzDA
5. Require indication of intensity of suggested activities in project proposals and final reports	2	monitoring	CzDA
6. Formulate a set of required information regarding supported individuals in final reports	3	monitoring	CzDA
7. Directly inform appropriate potential implementers (universities) about the call for proposals	2	formulation	CzDA
8. Take academic year phases into account when planning evaluations	2	evaluation	ORS
Project level	Importance	PCM	Addressee
9. Carry out a profound identification of the partner school's (and other stakeholders') needs	1	identification / formulation	implementer
10. Focus the project on limited number of topics and activities that would provide intensive support	1	identification / formulation	implementer
11. Adjust the working languages(s) of the project to actual knowledge of targeted students and teachers	2	formulation / implementation	implementer
12. Share all relevant materials with the partner university representatives	2	implementation	implementer

² We use 1 as a sign of high importance, 2 medium importance, 3 low importance.