

Final report on the project  
AKTION 72p10  
*“Rainfall kinetic energy as driving force of Water erosion”  
for year 2015*

**(preliminary overview of activities and expenses for Czech partner – as attachment to  
AKTION project proposal for year 2016 – situation to 20.11.2014)**

Czech partner:

Department of Drainage Irrigation and Landscape Engineering  
Faculty of Civil Engineering  
CTU in Prague  
Tomáš Dostál doc.Ing.Dr.

Austrian partner:

Department of Water, Atmosphere and Environment,  
Institute of Hydraulics and Rural Water Management  
University of Agricultural Sciences (BOKU) Wien  
Andreas Klik Prof., Dipl.Ing. Dr.

The topic of the project for 2015 had been at first exchange visit of both teams, to coordinate ongoing research projects, cooperation and to prepare the intensive student courses with duration one week each (1 week at CTU Prague and 2 weeks at BOKU Wien – one for Czech and second for Austrian students) and at second, intensive common student courses themselves. Until presented report has been worked out (24.11.2014) all three intensive student courses had been performed. Further visit of 2 Austrian professors with duration 3 days in Prague are planned for November/December 2015 (30.11. – 2.12.2015).

Within the project, all three planned courses were realized in planned duration and terms, just with increase of number of participants at Austrian side, without increasing of planned costs. Concerning of the staff visits also some partial changes had been adopted, mainly in terms of the visits. The organizers succeeded and saved part of the money, mainly due to they have got a significant credit for accommodation prices in Prague, in comparison to originally announced ones and also reduction of price of bus tickets compared to train, which was originally planned. Also, after agreement with Austrian partner, allowances for students in Prague was reduced significantly. Due to this fact, the number of Austrian participants of the course could be increased significantly (40 students compared to 30 planned).

**The detailed specification of the activities and costs follows:**

***I. part of the course had been held at BOKU Wien under the title “Applied soil erosion research methods“ during 1. – 6.11.2015 with following program:***

- 1.11.2015 – arrival of the participants, welcome
- 2.11.2015 – introduction, general methodological presentations and lectures
- 3.11.2015 – modeling of erosion processes in soil laboratory
- 4.11.2015 – field trip to experimental plots, presentation of soil conservation technology
- 5.11.2015 – calculation of measured results, statistical evaluation of measured data
- 6.11.2015 - final discussion, conclusion, finishing of the course, departure of the participants

There were in total 23 students and 4 teachers participating at the course – from the Czech Republic 13 students and 2 teachers (Doc.Dr.Ing. Tomáš Dostál a Doc.Ing.Josef Krása, Ph.D.) and from Austria 10 students and 2 teachers (Prof. Dr. Andreas Klik a Dr.Andreas Briefer).

***II. part of the course at CTU in Prague under the title „ Assessment of soil erosion and associated soil carbon losses and evaluation of effective protection measures “ had been held on 8. – 12.11.2015 with following program:***

- 8.11.2015 – arrival of the participants
- 9.11.2015 – introduction lectures, basics of computer modeling
- 10.11.2015 – sediment volume in the water reservoir assessment using GIS technology
- 11.11.2015 – sediment transport from the watershed assessment, using GIS technology, measurement on the laboratory rainfall simulator,
- 12.11.2015 - results assessment, final discussion, conclusions, departure of the participants

There were in total 50 students participating at the course and 6 teachers – 10 students and 5 teachers (doc.Dr.Ing. Tomáš Dostál, doc. Ing. Josef Krása Ph.D., Ing.Miroslav Bauer, Ing.Tomáš Laburda a Ing. Pavla Schwarzová Ph.D) from the Czech Republic and 40 students and 2 teachers from Austria (Prof. Dr. Andreas Klik, Dr. Andreas Briefer). The number of Austrian students has been increased from planned 30 to 40, due to very high interest at BOKU to take a part at the course. The number of participants from Austria has been increased due to the fact, that cheaper accommodation have been provided with university facilities and some funds were saved also from travel costs of Czech group to the course in Austria, where cheaper train has been used. Also, in agreement with recommendation of AKTION board and in agreement with Austrian partner, daily allowances of the students were reduced to 900,- CZK/week.

***III. part of the course at BOKU Wien under the title „ Assessment of soil erosion and associated soil carbon losses and evaluation of effective protection measures “, identical to the II.part in Prague had been held in Wien on 14. – 19.11.2015. The aim was to give a chance to obtain the same skills also to the student who could not participate at the course in Prague from capacity reasons.***

This part of the course has been performed by doc.Ing.Dr.Tomáš Dostál a doc.Ing.Josef Krása, Ph.D. The rest of time at BOKU Wien has been used as staff visit, to discuss further plans, to recalibrate experimental stuff (rainfall simulator and rill erosion simulator) and to work on common publication.

At the end of common courses the participants obtained certificates, which approved, that students passed intensive course, held under AKTION project 72p10. The sample of the certificate is enclosed. Several evaluation of the course in Vienna by Czech students is also enclosed. The evaluation of the course by several Czech students is also enclosed at the project report.

Further visit of two Austrian BOKU staff has been planned and booked at 30.11. – 2.12.2015 at CTU Prague, to discuss further cooperation, to prepare further common activities and to go through the students evaluation of the courses.

Allocated budget has been used until 20.11.2015 in agreement with project proposal and up to now, in total 145.700,- CZK has been spent. The rest to be spent is 7.300,- CZK, what will cover 3 days visit of Austrian staff in Prague.

All the invoices are stored at the economic department of CTU Prague. Regardless of relatively significant changes in project organization and general enlargement of the project's goals, the expenses have not been exceeded at all. Final recapitulation of the costs of the project will be submitted before the end of January 2016, as requested by AKTION board.