

Final report on the project  
AKTION 99p1  
**“Combating Land Degradation through Sustainable  
Management”**  
***“Boj proti degradaci půdy díky trvale udržitelnému  
managementu”***  
***for year 2024***

Czech partner:  
Department of Landscape Water Conservation  
Faculty of Civil Engineering  
CTU in Prague  
Tomáš Dostál prof.Ing.Dr.

Austrian partner:  
Department of Water, Atmosphere and Environment,  
Institute of Hydraulics and Rural Water Management  
University of Agricultural Sciences (BOKU) Wien  
Stefan Strohmeier Dipl.Ing. Dr.

This is report of the project, which proposal was submitted in spring 2024 for fall/winter 2024.

The topic of the project for 2024 had been reduced to main activity - students' intensive courses. Visit of Czech staff in Vienna before the course has been cancelled due to funding reduction by AKTION during proposal approval process. Unfortunately, even visit of Austrian staff after common courses activities has been cancelled by themselves, due to lack of time available. We improvised and did common activities (courses evaluation, data exchange, preparation of further activities) in online form. Surely, unused budget has been returned to AKTION office. Therefore, the main activity of project during 2024 was to realize main educational activities: two intensive student courses with duration of one week each (one week at CTU Prague and one week at BOKU Wien – one for Czech students in Vienna and second for Austrian students in Prague). Following activities were performed within the AKTION project during 2024:

- Intensive course for Austrian students at CTU Prague (32 students + 2 staff BOKU Vienna) (**10. – 14.11.2024**) (“**GIS assisted modelling of soil erosion processes**”) (list of participants – see below)
- Intensive course for Czech students at BOKU Wien **8. – 12.12.2024** – 14 students + 2 staff CTU Prague (“**Applied methods of soil erosion research**”) (list of participants – see below)

Within the project, both main planned activities - student courses, were realized in planned duration and terms, with planned number of participants. Concerning of the staff visits, they were cancelled by project provider due to lack of

funds, or were cancelled by Austrians due to extreme work load at the end of year, respectively – as mentioned above. The organizers succeeded and saved part of the money, mainly due to they have got a significant credit for accommodation prices in Prague + part of Austrian students preferred to find their private accommodation, or stayed with their friends here in Prague. Similarly, several Czech students stayed at their relatives and friends during course in Vienna. Also, reduction of price of transportation of train tickets switching to bus.

Due to savings during students courses and not realized staff visits, we saved in total 43.062,- CZK,- CZK, which were returned back to AKTION office.

### **Detailed specification of main activities:**

#### ***I. Course at CTU in Prague under the title „GIS assisted modelling of soil erosion processes“ held on 10. – 14.11.2024 with following program:***

10.11.2024 – arrival of the participants, welcome, introduction

11.11.2024 – introduction lectures, basics of computer modeling, GIS presentation. Common dinner.

12.11.2024 – soil loss calculation using GIS techniques. Experimental determination of splash erosion and kinetic energy of raindrops and spatial homogeneity laboratory measurement using rainfall simulator, critical shear stress determination using MiniJet device; presentation of green roofs as blue-green infrastructure element.

13.11.2024 – sediment transport from the watershed assessment, using GIS technology

14.11.2024 - results assessment, final discussion, conclusions, departure of the participants

There were in total 40 students participating at the course and 6 teachers – 8 students and 6 teachers (prof.Dr.Ing. Tomáš Dostál, doc. Ing. Josef Krása Ph.D., Ing.Miroslav Bauer, Ph.D., Ing. Martin Neumann, Ing.Petr Kavka, Ph.D. and Ing.Michal Vrána) from the Czech Republic and 30 students and 2 teachers from Austria (Dr. Marton Toth, Dr. Carina Helen Gassebner). Name list is enclosed.

#### ***II. Course at BOKU Wien under the title “Applied methods of soil erosion research “ during 8. – 12.12.2024 with following program:***

8.12.2024 – arrival of the participants, welcome, introduction

9.12.2024 – general methodological presentations and lectures, first part of laboratory works (rill erodibility experiments, aggregate stability)

10.12.2024 – modeling of erosion processes in soil laboratory (rill erodibility experiment, aggregate stability experiment, presentation of disdrometer). Common dinner.

11.12.2024 – field trip to Wachau region – soil erosion conservation at vineyards, terracing, conservation agriculture, historical patterns of agricultural landscape, wine production technology and tasting.

12.12.2024 – calculation of measured results, statistical evaluation of measured data, students presentation, final discussion, conclusion, finishing of the course, departure of the participants

There were in total 24 students and 4 teachers participating at the course – from the Czech Republic 14 students and 2 teachers (prof.Dr.Ing. Tomáš Dostál and Ing. Miroslav Bauer, Ph.D.) and from Austria 10 students and 3 teachers Dr.Marton Toth, Dr. Carina Gassebner and Dr. Wolfgang Sokol). Name list is enclosed.

At the end of common courses the participants received certificates, which approved, that students passed intensive course, held under AKTION project 99p1. Sample report of one student group worked out during their activities within the course in Vienna is also enclosed at the project report.

## Finances

Allocated budget has been used effectively.

Some changes were done between individual categories:

- We got special rate for bus tickets for group of students travelling to Vienna, therefore we saved some funds
- We got (not foreseen) significantly better prices for students accommodation in Prague in university hostel, therefore we saved some funds.
- Slight difference in allowances for students and staff during course in Prague in fact was caused only by numerical error in proposal. Daily allowances for students and staff is correct, only total sum has been miscalculated in proposal.
- Furthermore, we saved some funds, which were returned to AKTION office.

Detailed specification is presented at the table:

<i>Activity</i>	<i>Expenses – planned (CZK)</i>	<i>Expenses – reality (CZK)</i>
Travel expenses Prague – Vienna (student course)	21.400,-	16.138,-
Travel expenses Prague – Vienna (staff visit)	0,-	0,-
Allowances for student course in Prague	80.000,-	84.000,-
Accommodation for the course in Prague	130.000,-	97.600,-
Allowances BOKU staff in Prague	5.400,-	0,-
Accommodation BOKU staff in Prague	4.000,-	0,-
Returned to project provider – AKTION agency	0	43.062,-
<b>Total</b>	<b>240.800,-</b>	<b>240.800,-</b>

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.

**List of participants from the Czech Republic at the course at BOKU Wien in December 8. – 12.2024:**

Students:

- 1 Katerina Volkova
- 2 Alena Skvarova
- 3 Albert Novak
- 4 Viktorie Vojtkova
- 5 Josef Borik
- 6 Simon Louda
- 7 Radek Malek
- 8 Tomas Rus
- 9 Halil Ibrahim Yildiz
- 10 Antonie Clarens
- 11 Petr Hálek
- 12 František Janota
- 13 Petra Janáčková
- 14 Sylvia Mounton

Professors:

1. prof.Ing.Dr. Tomáš Dostál
2. Ing. Miroslav Bauer, Ph.D.

**List of participants from Austria at the course at CTU Prague in November 10. – 14. 2024:**

Students:

- 1 Amin Muhammad Junaid
- 2 Baier Ella
- 3 Hadaya Karim Sebastian
- 4 Beutler Lena Rebekka
- 5 Bittmann Lena
- 6 Dold Sebastian Leon Andreas
- 7 Fokker Anne Margaretha
- 8 Geritzer Matteo
- 9 Heufler Silvia
- 10 Karl Miluse
- 11 Klausner Julian
- 12 Klinger Valentin Konstantin
- 13 Knaus Olivia
- 14 Knezevic Milicia
- 15 Narr Simon

16	Ochse Heiner
17	Plotegher Daniel
18	Reimoser Sonja
19	Ruppert Karl
20	Schaupp Susa
21	Schüßler Lara Daphné
22	Scoz Linus
23	Sonbay Gülin
24	Springer Melina
25	Stadler Simon Valentin
26	Vannini Michele
27	Wedenig Rahel Franziska
28	Wubneh Melsew Amsalu
29	Ferchl Elias
30	Kramer Paul Yannick

Professors:

1. Dr. Marton Toth
2. Dr. Carina Helen Gassebner

*Project leader and Head of Faculty declare, that all CZK financial sources were used effectively and with maximum care to provide profit for students, participating at main dedicated activities (student courses, held at CTU Prague).*

In Prague 25.1.2024

Project leader  
Prof.Ing.Dr.Tomáš Dostál

