MENDELU IN THE MONGOLIAN FORESTS

NEWSLETTER VOLUME 1 | JANUARY 2025

Preserving and restoring forest ecosystems in Mongolia

We are pleased to present you with this new newsletter, aimed at the wide group of partners, scientists, foresters and land managers, students, colleagues and friends interested in the current activities of our team in Mongolia and the forestry-related events taking place there. We are delighted with the success of our cooperation and are committed to achieving further results and milestones together. We believe that our most valuable asset is our comprehensive approach, and we are sure that the diverse perspectives of our team members will drive progress in Mongolian forestry. We also believe that sharing our knowledge will take us one step further, and that your feedback and reactions to the news and opportunities described below will bring new perspectives and amazing results.

Dr Jan Šebesta Former Project Manager

Mendel University in Brno Zemědělská 1665/1 Brno, 613 00, Czech Republic Phone: +420 545 131 111 E-mail: info@mendelu.cz Mendel
University
in Brno

WHAT HAPPENED IN 2024?

SUCCESSFUL COMPLETION OF THE STREAM PROJECT

Between 2022 and 2024, we worked on the agro-forestry project Sustainable Resilient Ecosystem and Agriculture Management in Mongolia (STREAM), which was cofinanced by the European Union and the German Federal Ministry for Economic Cooperation and Development. Mendel University in Brno (MENDELU), along with our consortium of universities, collaborated on the forestry component of the project, which was led by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). Our activities combined both research and education and included practical demonstrations. We managed to complete the STREAM project on time and in an orderly manner at the beginning of 2024, with all materials and outputs promised delivered. As part of the project outputs, we published a book entitled **Basics of Forest Ecology And Management**, a practical handbook Sustainable Forest Management – Silviculture Basics, several reports, published recommendations, graphical abstracts and a documentary film. Moreover, we organised several field trips and workshops for Mongolian students and foresters, including tree climbing training and a study tour for Mongolian foresters and academics to the Czech Republic. We were also the first organization to implement forest pedagogy in Mongolia. Activities for children were supplemented with games, which are now used in primary schools to teach about biodiversity. The final project report and other results can be found on our website.



Figure 1. A) Title page of our recently published book, B) implementing forest pedagogy with students from Mongolian universities.



Mendel University in Brno Zemědělská 1665/1 Brno, 613 00, Czech Republic Phone: +420 545 131 111 E-mail: info@mendelu.cz

100TH ANNIVERSARY OF THE ESTABLISHMENT OF THE MONGOLIAN FORESTRY SECTOR

A national forum on forestry, several conferences and many other events were organised to commemorate the 100th anniversary of the establishment of the Mongolian forestry sector. The Mongolian government and interested organisations and citizens set out to achieve the goal of expanding the area of forest cover in Mongolia to 9.0% by 2030, an aim reflected in the *Billion Trees* national movement. Our colleague from that National University of Mongolia, Dr Byambagerel Suran, together with colleagues from other institutions, organised a scientific forestry conference entitled <u>Innovative Approaches for Sustainable Forest and Rangeland</u> <u>Management in Central Asia</u> on October 2nd, 2024. Our team actively participated and submitted seven presentations and two posters for the conference. We were represented at the event by Dr Václav Pecina, who delivered a presentation at the plenary session.

MENDELU PREPARED AN EDUCATIONAL TRAIL ON FORESTS ON BOGD KHAN MOUNTAIN

Mongolia started using the Czech system of marking hiking trails in 2023 after the Mongolian Walking Association (MWA) signed a contract with the Czech Tourist Club on Bogd Khan Mountain. The same year, MENDELU and the MWA jointly marked and then opened the first hiking trail (Dugui Tsagaan) prepared according to Czech standards. In 2024, MENDELU and the MWA jointly prepared an educational trail, "Forests for Life", on the same hiking trail, where we explain the functions and importance of forests to hikers and other visitors. The trail also includes several interactive wooden games for children and adults. The project was implemented by the MWA with the support of the Czech Embassy in Ulaanbaatar and funding from the Czech Republic (Czech Aid), with MENDELU taking part as an expert guarantor.



Figure 2. Examples of the eight educational boards and six game boards on the educational trail.



CZECH STUDENTS AND ACADEMICS FROM MENDELU ON INTERNSHIP IN MONGOLIA

In 2024, nine Czech students from three faculties and three academics, financially supported by MENDELU, spent over four weeks gaining experience and gathering data in Mongolia. The team addressed both environmental and social issues, such as the evaluation of saturated hydraulic conductivity in soils, assessment of artificial tree plantations, tree ecophysiology studies, analysis of the habits and preferences of Mongolian hikers and the evaluation of grazing practices in Mongolian forest-steppe. Fieldwork was primarily conducted at the demonstration sites of the STREAM project. In addition, three PhD students studying wood processing at MENDELU completed a three-month internship at the Mongolian University of Science and Technology with financial support from the Czech National Agency for International Education and Research. Part of their internship included visits to woodworking companies to evaluate the possibilities of processing birch wood.



Figure 3. Students collecting data and studying biodiversity.

MONGOLIAN STUDENTS STUDY AT MENDELU

Three Mongolian students are now studying at MENDELU. Two graduates of the Mongolian University of Life Sciences (MULS) are pursuing their PhD studies at the Faculty of Forestry and Wood Technology at MENDELU. They are working on two research projects focused on the soils of Mongolia, the first focusing on moisture dynamics of soils in forests at different developmental stages, and the second on pedoanthracology (analysis of charcoal in soil) and the 'fire history' of Mongolian forests. Another student from MULS is enrolled in a semester-long programme studying selected subjects from the European Forestry programme curriculum, with financial support from the Government of the Czech Republic.



Mendel University in Brno Zemědělská 1665/1 Brno, 613 00, Czech Republic Phone: +420 545 131 111 E-mail: info@mendelu.cz

STREAM+ PROJECT OFFICIALLY KICKS-OFF

The official continuation of the STREAM project was launched at the end of 2024. The project is co-funded by the European Union and the German Federal Ministry for Economic Cooperation and Development. Food and Agricultural Organisation (FAO) and GIZ will implement the project until 2028 in cooperation with the Mongolian Ministry of Environment and Climate Change. MENDELU is presently in discussions with GIZ regarding our possible contribution.

CONTINUATION OF MENDELU'S FORESTRY ACTIVITIES IN MONGOLIA

MENDELU has acquired one-year's funding from the Czech Ministry of Foreign Affairs to continue our activities in Mongolia between 2024 and 2025. These activities will focus primarily on strengthening professional capacities and education in the field of sustainable forest management and on developing supportive tools for adapting Mongolian forests to climate change. A secondary objective will be to strengthen the public's relationship with forests by providing support for hiking activities and implementing forest pedagogy. Our target groups include the academic community, public administration bodies, the forestry sector and the general public. We have already started discussions with our Mongolian partners and will be working with them to design online lectures.

The expected outputs will be:

- 1) a comprehensive educational course on sustainable forest management in line with the ecological limits of the environment,
- 2) a workshop on the collection and preparation of invertebrates,
- 3) a database of ecological conditions for the growth of Siberian larch and Scots pine,
- 4) three new hiking trails, and
- 5) three forest pedagogy events.



Figure 4. Introduction to Forest management for university students.



UPCOMING EVENTS

RESEARCH: IT'S TIME TO START PUBLISHING OUR DATA

Science is an integral part of our portfolio, and research activities and data collection from the previous STREAM project are still ongoing. In 2024, new research topics, primarily focused on social issues, were also explored. Currently, we are finalizing the analysis of soil samples and summarizing the data collected. Additionally, we are about to start preparing the first in a series of planned research papers, which will focus on topics such as soil moisture dynamics in Mongolian forests at different developmental stages and the evaluation of saturated hydraulic conductivity across different forest and steppe sites. The portfolio of topics being covered is very broad, however, and, in addition to soil science, includes several other scientific disciplines falling broadly within the fields of botany, paleoecology and forest ecology. We would be very happy if you could share your expertise and participate in the preparation of these papers. If interested, please do not hesitate to contact us - the sooner the better - though we will regularly remind you of the offer.

SCIENTIFIC CONFERENCE AT MENDELU: PROMOTION OF OUR RESULTS AT A NATIONAL LEVEL

We are planning to organise a one-day scientific conference to summarise and present our activities in Mongolia since 2022. There will be a particular focus on the results of student research projects, based on data collected in Mongolia in 2024. The conference will be held at the Faculty of Forestry and Wood Technology, MENDELU, in mid-April and will feature presentations on both scientific findings and our educational and developmental activities. The event will conclude with thematic travel presentations highlighting the experiences of students working in the forests and steppes of Mongolia. Czech-speaking colleagues are welcome at the conference, please do not hesitate to contact us if you are interested.

STUDY, STUDY, STUDY! NEW STUDY OPPORTUNITIES IN MONGOLIA AND THE CZECH REPUBLIC

The Mongolian Ministry of Education and Science has announced the availability of scholarships, financed by the Czech Ministry of Education, Youth and Sports, for students and academics wishing to undertake study stays at Mongolian universities. The application deadline for these study scholarships is 15 February 2025, though summer school courses can only be applied for until 31 January 2025. For more details, please visit <u>here</u>.

The Government of the Czech Republic is currently offering short-term scholarships for students and employees of Mongolian universities. Academics can participate in research or teaching exchanges at Czech universities for up to one



month, while Bc/MA students, along with PhD candidates engaged in advanced research, can apply for study stays lasting 2–9 months. For deadlines and more details, see <u>here</u>. There is also a possibility to apply for <u>summer Czech language</u> <u>courses</u> lasting 3–4 weeks. All scholarships cover tuition, accommodation and essential living costs. We are ready to welcome prospective new students and co-lleagues to MENDELU and help with all the arrangements. We will also be happy to offer topics for joint research. Please share this opportunity with your colleagues and any students that might benefit from it, or feel free to pass on the offer to others who could benefit.



Figure 5. A) Government scholarships to support studies in the Czech Republic, B) leaflet offering research topics for Mongolian students at MENDELU.

ONLINE LECTURES AND FIELD WORKSHOPS IN MONGOLIA: DO YOU WANT TO JOIN US?

We will be organising a training course on sustainable forest management, consisting of online lessons and field workshops, for Mongolian foresters and academic staff and students from our partner Mongolian universities. Two threeday workshops are scheduled to take place in Binder in June and July 2025. The course programme will concentrate on the key environmental factors for effective and sustainable forest management, the impact of climate change on Mongolian forests and contemporary approaches and value chains. We are preparing the course in close cooperation with our local partner universities and GIZ.

Do you want to join us? Your forestry expertise, provided through participation in lectures and field training, would be greatly appreciated. If you would like to share your expertise and participate, we kindly ask you to let us know by the end of January. If you do join us in Mongolia, in addition to sharing expertise, we can also help with local costs and research ideas and activities.



Mendel University in Brno Zemědělská 1665/1 Brno, 613 00, Czech Republic Phone: +420 545 131 111 E-mail: info@mendelu.cz

IN THE BACKGROUND

Our long-term colleague, Dr Antonin Kusbach, has taken up a new position and is now working in Zimbabwe.

Tony Kusbach needs no introduction to our team, but others may not know the news that Tony is currently working as a forestry expert in Zimbabwe. Tony, can you briefly explain your position and professional focus?

Our Mongolian team has been developing for years, right back to 2015. At that time, encouraged by the EU Capacity Building Programme, we put together an International Consortium of Universities as a means of improving involvement in forestry activities in Mongolia. I interrupted my Mongolian activities for a year thanks to a contract position with FAO in Armenia over 2022–23. After almost two years, I was posted to a new position at the FAOs subregional office in Harare, Zimbabwe, working on integrated landscape management related projects. It is true that I am a forester but, as you know, landscape-related issues are complex and forestry work here is tightly linked to all landscape types, including agricultural land, savanna and Miombo woodland.



Figure 6. Tony in Zimbabwe.

The ecosystems are different in Africa, but can you see any similarities in the challenges facing forestry in Mongolia and Zimbabwe?

As I said, the southern African landscape is complex - just imagine following a line from the Kalahari Desert in Botswana to the tropical rain forest on the mountainous Zimbabwe-Mozambique border. Nevertheless, ecological concepts generally work the same way everywhere, and for that reason my work, whether in Africa or Asia (specifically Mongolia), will be similar. The impacts of climate change are also alike everywhere, making people's lives challenging. I would like to use my experience to contribute to improving the quality of life of African communities.



Figure 7. Zimbabwean landscape.



MENDELU

Mendel University in Brno (MENDELU) is a public institution with a long tradition of excellence in the natural sciences and related education and research. Proudly bearing the name of Gregor Johann Mendel, the founder of modern genetics, we have been driving new ways of thinking since 1919.



MENDELU IN MONGOLIA

MENDELU focuses on the environment, climate change, biodiversity and sustainability in Mongolia, with priority activities in education, research and cooperation in forestry practice. The aim of these activities is to protect natural ecosystems from degradation and promote sustainable development.

CONTACT US

- Br Václav Pecina (Communication manager)
- 🖂 vaclav.pecina@mendelu.cz

FOLLOW US

https://forest4mongolia.mendelu.cz/en/
https://www.facebook.com/forest4mongolia

Mendel
University
in Brno