

Groundbreaking Research at UCA Addresses Food Security in Central Asia



Experimental plot with wheat varieties created by MSRI in Tajikistan.

The University of Central Asia (UCA) has been at the forefront of research addressing food security in the high mountains of Central Asia. Through its Mountain Societies Research Institute (MSRI), UCA has made significant contributions to under-

standing the complex challenges faced by mountain communities and developing sustainable solutions.

A recent article published by MSRI in the prestigious BioScience journal has garnered

significant recognition. Titled "[Food Security in High Mountains of Central Asia: A Broader Perspective](#)," this article has been designated as an Editor's Choice, highlighting its exceptional contribution to the field of food security. [Continued on page 2](#)

UCA Training for Kyrgyz Parliament Staff in Digital Skills

The University of Central Asia (UCA) conducted a training session on digital skills and digital information management for the staff of the Kyrgyz Republic's Parliament. The session focused on equipping participants with essential knowledge in information security, data protection, and cybersecurity.

In his welcome remarks to the participants, Zamirbek Kozhomuratov, Deputy Minister of Digital Development of the Kyrgyz Republic, emphasized the significance of digitalization in the global economy. He said, "The use of digital technologies allows us to expedite and simplify work processes, reduce production costs, facilitate interactions between the state and citizens, and improve the quality of public services."



Dmytro Zubov, UCA's Associate Professor of Computer Science addressing participants of the training session.

This partnership of UCA with the Ministry of Digital Development, as part of the Digital CASA - Kyrgyz Republic project, aims to equip government officials with the necessary skills to navigate the evolving technological landscape in the country. [Continued on page 2](#)

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The article sheds light on the multidimensional nature of food security in these mountainous regions, emphasizing the impact of climate patterns, environmental attributes, and socioeconomic factors on water supplies, biodiversity, droughts, and other hazards that affect food production and access. Professor Roy Sidle, Director of MSRI and a renowned expert in Earth and Environmental Sciences, spearheaded this research.

Instead of narrowly focusing on production and distribution, MSRI adopts an integrated approach that considers both natural and anthropogenic stressors, feed-

back loops, and mitigation strategies.

To further delve into this important topic, Professor Sidle also participated in an engaging [episode of the BioScience Talks podcast](#). In this interview, he expands upon the challenges faced by mountain communities in Central Asia and discusses the broader implications of his research: *"Isolated mountain villages face a myriad of challenges, including poverty, subsistence living, conflict, and marginal lands, rendering their residents highly vulnerable to malnutrition, stunting, and limited food access. The infertile soils, devoid of organic matter, further exacerbate the situation.*

Overgrazing of high-elevation pastures and the often overlooked impact of natural hazards compound the already fragile state of food security."

MSRI's research and Professor Sidle's expertise have not only contributed to the academic understanding of food security but also have practical implications for the lives of people in mountain communities. By working closely with local stakeholders, MSRI aims to develop innovative solutions that enhance food security, promote sustainable land management practices, and empower mountain communities to achieve self-sufficiency.

MSRI Conducts Training on Avalanche Mapping in Tajikistan

Tajikistan, along with other mountainous countries in Central Asia, face a high risk of snow avalanches annually, particularly from January to April during the snowpack melting season.

UCA's Mountain Societies Research Institute (MSRI) recently organized a training session focused on mapping snow avalanches, which are among the most dangerous hazards in Tajikistan and Central Asia. The training was attended by key stakeholders, including the Committee of Emergency Situation, Department of Glaciology of Academy of Sciences, World Food Program, Pamir Energy, and the Aga Khan Agency for Habitat.

The participants were equipped with the necessary skills to map snow avalanche deposits using MSRI's open-access script, Snow Avalanche Frequency Estimation (SAFE), spanning a period of 32 years. This enabled them to create maps showing the frequency and vulnerability of avalanches. Such a dataset plays a crucial role in accurately identifying areas at risk of avalanches, such as roads, villages, sections of powerlines, and other critical infrastructure.

The training program was specifically designed to translate the SAFE dataset into clear and straightforward recommendations. The aim was to provide decision-makers with valuable insights to aid their urban planning efforts and prioritize infrastructure mitigation measures. By utilizing this comprehensive dataset, policymakers can make



Dr. Arnaud Caiserman, Senior Research Fellow at MSRI, explaining the use of avalanche mapping.

informed decisions and take proactive steps in minimizing the impact of avalanches on communities and infrastructure.

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UCA Training for Kyrgyz Parliament Staff in Digital Skills

The team of experienced UCA instructors provide high quality interactive sessions tailored to the specific needs of the participants, ensuring they gain practical skills that can be immediately applied to their daily work.

Alaybek Alymbaev, First Deputy Head of the Parliament Staff, stressed the importance of the training at the state level. He noted, "The institutional development of the parliament involves seminars on the concept of digitalization of the state, cybersecurity, discussion forums, and thematic trainings. The knowledge and skills acquired from such seminars and trainings have proved very useful in our daily activities, enhancing our communication and professional skills."

Munk School Professor Lectures at UCA

Professor Peter Loewen, Director of the Munk School of Global Affairs & Public Policy at the University of Toronto, recently visited the University of Central Asia (UCA). During his visit, Professor Loewen engaged in discussions with UCA's senior management on potential collaboration in research, delivered a public lecture on the future of democratic societies, and toured UCA's Campus in Naryn.

Professor Loewen's visit underlines the long-standing relationship between the University of Toronto and UCA, encompassing significant achievements such as joint efforts in developing UCA's undergraduate computer science curriculum.

A highlight of Professor Loewen's visit was his interaction with UCA students whose academic projects left a positive impression on him, showcasing their ingenuity and dedication to finding solutions for real-world challenges. He was particularly impressed by a predictive model for air quality in Bishkek, a vital contribution to environmental sustainability, and a groundbreaking deep learning method for identifying diseases in tomatoes,



Professor Peter Loewen addressing participants at the public lecture.

which holds great promise for agricultural advancements.

Expressing his enthusiasm, Professor Loewen remarked, "I am impressed to see how UCA students are applying deep learning and ar-

tificial intelligence tools to solve real world problems in Kyrgyzstan. Their high-level work is a remarkable example of the productive collaboration between UCA and the University of Toronto."

CHHU Explores Traditional Music in Tajikistan

Dr. Chorshanbe Goibnazarov, Research Fellow at UCA's Cultural Heritage and Humanities Unit, recently delivered a thought-provoking presentation entitled "Independence and Development of Tajik Musical Art: Reality and Prospects of the Conservatory" at a conference held at the National Conservatory of Tajikistan.

Dr. Goibnazarov's paper explored the realm of traditional music and its evolution in the wake of Tajikistan's independence. He posed critical questions and put forth theories surrounding the concept of *musiqi-yi sunati* (traditional music) in Tajikistan's music studies.

Central to his discourse was the exploration of what exactly constitutes "traditional music" within Tajikistan's musical culture. Dr. Goibnazarov pondered whether this designation solely applies to music from the past or encompasses contemporary musical expressions as well. Furthermore, he questioned whether the traditions and rituals associated with music production and performance should be included, or if it is solely music played during various ceremonies. Notably,



Dr. Chorshanbe Goibnazarov presenting at the National Conservatory of Tajikistan.

he shed light on the fact that this music is now performed in unconventional contexts using modern electrified musical instruments, and is taught utilizing European notation. Such observations naturally raise queries as to wheth-

er it can still be deemed "traditional music" In addition, Dr. Goibnazarov examined the conflicting definition of "traditional music" stemming from the introduction of European music during the Soviet era.

UCA Students Win Inter-University Hackathon



Winning student teams. L to R: Erbol Sovetaly uulu, Elnazar Ulanbek uulu, Ilkhomzhon Sidikov, Nurlan Shaidullaev (Senior Lecturer, UCA), Ramil Salihar, Baistan Tashkulov and Eldar Ulanov.

Computer Science, and Communications and Media students from UCA's School of Arts and Sciences won two awards at the Inter-University Hackathon held in Bishkek. One team secured the first place for developing a smart Telegram messenger-bot using Artificial Intelligence technology, and

another won third place for developing an online photo service using image, text, and audio recognition as well as Artificial Intelligence. These students also received an offer from a software company to further develop the project for commercial use.

Hackathons are great opportunities for students to showcase their skills and creativity by developing innovative solutions to real-world problems. Success at such prestigious events help UCA students gain recognition and exposure, and opens up career opportunities.

SPCE Spurs Startup Success in Naryn

Aigerim Muratbekova and Kanyshai Kadyrakunova, alumni of the SPCE Naryn Programme, "Local Impact: A Transformative Partnership in Asia and Africa," have made significant strides in entrepreneurship, becoming an inspiration for their peers in Naryn.

Aigerim and Kanyshai pursued studies in Entrepreneurship, which they admit instilled them with the confidence to harness their own potential. They acquired essential knowledge, delved into crafting professional business plans, and gained practical skills. Their journey continued as they enrolled in the Business Incubation course, immersing themselves in the intricacies of establishing and managing their own ventures.

Motivated by their passion, Aigerim ventured into kurut production, a type of dried cheese, while Kanyshai focused on processing and packaging raw mountain honey. Both young women invested substantial effort into developing new products of exceptional quality, with the aim of capturing the local market.



Aigerim Muratbekova and Kanyshai Kadyrakunova proudly display their products.

As startup entrepreneurs, they actively engaged with Naryn's business community, participating in business Hackathons, networking with seasoned entrepreneurs, and seeking valuable insights to advance their ideas. A notable milestone for these SPCE graduates was securing a grant through the Aga Khan Foundation's "YES Project," enabling them to expand their production capacity and successfully penetrating the market with their products.

"We are immensely grateful to SPCE for the invaluable opportunities and support it has provided us. Through the "Entrepreneurship" program and the "Local Impact" project, we acquired knowledge and skills, and gained a powerful drive for personal growth. We firmly believe that with determination and creativity, anyone can overcome their challenges and achieve success," shared Aigerim and Kanyshai.

UCA Hosts International Economics Olympiad



The winners of the Olympiad from left to right: Orozbekov Aktan, Zarylbekova Gerda, Aibekova Aiyim, Tilek Aruuke, Mukhtarzhanov Izatullo.

The University of Central Asia (UCA) in collaboration with the Economic Fundamentals Initiative (EFI) and the Ministry of Education and Science of the Kyrgyz Republic successfully hosted the second round of the International Olympiad in Economics in Bishkek in May. The top five winners were awarded certificates to participate in the final stage of the Olympiad in Bratislava, Slovakia, scheduled for September 2023.

The Olympiad, specifically designed for students of grades 9, 10, and 11, aims to raise awareness about the importance of economics and finance, and provide a platform for talented students to showcase their

skills and compete internationally.

A total of 1,700 students from all regions of the country participated in the first round of the Olympiad, with 53 students advancing to the second round. The awards ceremony was attended by Kanybek Imanaliev, Minister of Education and Science of the Kyrgyz Republic, and Dr. Christopher Gerry, Dean of UCA's Graduate School of Development.

"I extend my heartfelt congratulations to the winners who have advanced to the international round of the Olympiad. Your dedication and hard work have paid off, and you have rightfully earned this prestigious

opportunity to showcase your talents on an international stage. I am grateful for the partnership of UCA and EFI which aims to enhance teaching and research opportunities, creating new economic prospects, and ultimately improving the quality of life for our citizens," said Kanybek Imanaliev, Minister of Education and Science of the Kyrgyz Republic.

One of the winners, Izatullo Mukhtarzhanov from Osh, shared his experience, stating that before participating in the Olympiad, his knowledge of economics was superficial. He expressed his interest in the subject, saying, "Economics is a fascinating field as it is applicable in our daily lives. To prepare, I extensively studied various materials and articles related to economics. In the future, I might choose a specialization related to this subject."

Addressing the participants, Dr. Christopher Gerry emphasized the importance of economic literacy and UCA's commitment to promoting it: "UCA aims to empower talented students, encouraging them to believe in themselves and their achievements. This year, we are proud to send five finalists from Kyrgyzstan to Europe for the Olympiad's final stage. In the coming years, we look forward to strengthening our partnership with the government, expanding teaching and research opportunities, creating new economic prospects, and enhancing the quality of people's lives."

UCA Campuses Celebrate Spring with Outdoor Events



Students, staff and faculty enjoy an outdoor concert at Naryn Campus.



An Outdoor Bazaar at Khorog Campus with fun games, activities and food stalls celebrating the arrival of spring.

UCA Staff Attend First Aid Training



AKAH representatives demonstrating first aid techniques to the participants.

With an aim to raise awareness about the importance of first aid, faculty and staff at UCA's Khorog Campus attended a training session organised by the Aga Khan Agency for Habitat (AKAH). The workshop provided an opportunity for attendees to receive practical knowledge on various health-related topics, such as first aid, artificial respiration, and heart-related issues.

The acquisition of first aid skills is essential for individuals of all ages and occupations. It equips people with the ability to respond promptly and efficiently during emergencies, offering immediate assistance until professional medical aid is available.

UCA Presents at Creative Industries Festival

The Communications and Media Department of UCA's School of Arts and Sciences (SAS) presented at the Create4: Creative Industries Festival, a case for the deep connection between creativity and economic development in mountain communities of Central Asia. The event brought together a vibrant community of industry and educational innovators in Bishkek to explore ways forward for Creative Economy.

During the event, UCA faculty and students delivered an engaging workshop that showcased the University's creative endeavours with a particular focus on "Nomad 2023: A Living Land" festival in Naryn in September 2023. Through interactive activities, the workshop provided an opportunity to discuss ongoing and upcoming research and creative projects and shared insights into



Dr Soheil Ashrafi, Chair of UCA's Communications and Media Department, presenting at the Create4 Festival.

media innovative initiatives. The Festival offered a valuable opportunity to establish potential partnership with like-minded individuals and institutions.

Students Organise TEDx at UCA

"Reinventing Lives" was the theme of this year's TEDx Talks, an annual event organised by the students of UCA's School of Arts and Sciences in Khorog, Tajikistan. Topics included passive energy solutions to online banking and indigenous practices, encouraging the audience to transcend limitations and embrace new possibilities.

The Talks brought together a diverse range of speakers including Abdullo Kurbanov (Co-Founder of Alif Bank Tajikistan), Kris Lizak (Country Representative of Geres Tajikistan, an international NGO working to address the impact of climate change), Dr Sul-tonbek Aksakolov (Historian and Faculty at UCA), and Malika Giles (Manager of the Khorog Urban Resilience Programme, an AKDN



Malika Giles delivering a TEDx Talk on *The Power of Big Data*.

initiative supported by the Swiss Government). The event was supported by the Aga Khan Agency for Habitat; Tcell, a major mobile company in Tajikistan; 55 Group, an international investment and management company; and the World Food Programme.

First Digital Lab Opens at SPCE Khorog



Participants listen attentively to the presentation on the Digital Lab.

With support from the German Society for International Cooperation (GIZ), School of Professional and Continuing Education (SPCE) Khorog inaugurated the first Digital Lab within its Centre for Entrepreneurship. The newly inaugurated laboratory is a comfortable and contemporary workspace, equipped with cutting-edge digital equipment where SPCE learners will be able to acquire essential skills in digital literacy, digital

marketing, business digitization, and digital service provision. The Centre for Entrepreneurship, where the Digital Lab is housed, has since its establishment in 2021 offered post-investment business advice and training support to small business leaders and farmers in the Gorno-Badakhshan Autonomous Oblast (GBAO) region of Tajikistan. The Centre has graduated more than 800 entrepreneurs from various parts of GBAO,

contributing to income generation, business growth, competitiveness, and market development in the region.

The opening ceremony was attended by Farid Zamirov, Head, GIZ Tajikistan, among others. Gulsha Chumakhonov, Coordinator of the Center for Entrepreneurship emphasised the digital lab's integral role in the center's long-term comprehensive vision.

UCA Alumni Association Conduct Workshop for Current Students



Mohru Mardonova (standing), UCA Alumna, mentoring current students for job and graduate studies applications.

Sharing their personal experiences, challenges, and triumphs, the alumni of UCA's School of Arts and Sciences came together to ignite passion, drive, and determination among the current students.

The University's Alumni Association organised a hybrid workshop on both campuses in Naryn and Khorog sharing valuable insights on a range of topics, including graduate studies, job hunting and diploma projects.

The platform provided an excellent opportunity for building a strong and enduring connection between the University and its graduates.

UCA Researcher Presents Insights on Diversifying Mining Towns in Kazakhstan

Madina Junussova, Senior Research Fellow at UCA's Institute of Public Policy and Administration, recently presented her study on the alternative development paths for mining towns in Kazakhstan at the International Conference on Sustainable Regional Development in Central Asia in Almaty. Collaborating with Alexander Diener from the University of Kansas, and Zarina Adambussinova from the American University of Central Asia, Kyrgyzstan, Madina Junussova highlighted the need to move mining towns away from heavy reliance on mining activities.

Junussova emphasized that the economic potential of each city is influenced by its unique history, natural environment, and geographical location. Kazakhstan's regional policy should focus on economic diversification as a strategic objective, ensuring residents are equipped with skills beyond mining-related activities. An example of successful transformation was seen in Tekeli, where the closure of the mining enterprise was mitigated by capacity-building initiatives by School of Professional and Continu-

ing Education (SPCE) and the establishment of the UCA campus. This contributed to sustainable growth, increased interest from residents and businesses, and enhanced the town's resilience.

In addition to her study on mining towns, Junussova co-developed a paper on Sustainable Urban Infrastructure in Central Asia, presented at the Conference by co-author

Aigul Beimisheva from Narxoz University, Kazakhstan. At the conference Madina Junussova also conducted an academic master class covering various topics such as Regional Science Policy and Practice (RSP) publication criteria, modeling the economic and spatial impacts of disasters, and replicable advanced methods for evidence-based policymaking.



Participants of the Conference on Sustainable Regional Development.

Inspiring Journey of Markhabo Khudobakhshova

"I don't get offended by people's stereotypical comments!" This powerful statement embodies the resilience and determination of Markhabo Khudobakhshova, a remarkable 35-year-old woman and graduate of the "Thrive" project. Markhabo Khudobakhshova's story traces her path as a professional builder in the construction industry.



Partnering with the "Thrive" project, School of Professional and Continuing Education (SPCE) strives to foster integrated economic and social development, offering growth-oriented financial and technical assistance services to entrepreneurs. This program aims to create new and improved employment opportunities for both women and men in Khatlon and Gorno-Badakhshan Autonomous Oblast (GBAO) regions.

Markhabo Khudobakhshova embarked on her studies in 2018, dedicating her mornings to learning while engaging in a paid internship during the afternoons as a vital part of the project. Today, in addition to her work at a construction company, she also earns extra income as a skilled plumber and electrician, skills she acquired through the comprehensive training program at SPCE Khorog. The participants of the program delved deep into plumbing, ventilation, and electrical systems, complementing their construction expertise.

Markhabo Khudobakhshova takes great pride in her work, seamlessly fulfilling her responsibilities alongside her male colleagues. She has no desire to emigrate, as her valuable expertise makes her an in-demand specialist in her homeland.

Before her current role, Markhabo Khudobakhshova volunteered at the Aga Khan Agency for Habitat (AKAH). Now she successfully balances her studies with work as part of the AKAH project which collaborates with communities residing in vulnerable mountain and rural areas, strengthening their resilience to natural disasters and complex emergencies.

"Now I can help my neighbors fix sockets, stoves, and even washing machines. Technical breakdowns no longer pose a problem for me. I highly recommend this course to everyone," Markhabo Khudobakhshova enthusiastically adds.

UNIVERSITY OF CENTRAL ASIA

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