

Roundtable "Glaciers of mountain regions of Central Asia in the conditions of climate change"
November 25, 2022.



ROUNDTABLE

"Glaciers of the mountain regions of Central Asia in the conditions of climate change"

Date: November 25, 2022 / 12:00-18:00 (GMT +6, Bishkek time, Kyrgyz Republic)

Venue: Hotel "Novotel", 16 Manas Ave., Bishkek, Kyrgyzstan

Organizers: Ministry of Emergency Situations of the Kyrgyz Republic (MES KR), Ministry of Natural Resources, Ecology and Technical Supervision of the Kyrgyz Republic (MoE KR), Ministry of Agriculture of the Kyrgyz Republic (MoA KR), Ministry of Foreign Affairs of the Kyrgyz Republic (MFA KR), National Academy of Science of the Kyrgyz Republic (NAS KR), The United Nations Educational, Scientific and Cultural Organization (UNESCO), Central-Asian Institute for Applied Geosciences (CAIAG).

Format: Hybrid (online, offline)

Language: Kyrgyz/Russian/English (simultaneous translation)

ZOOM: <https://us02web.zoom.us/j/84756087576?pwd=YktpUjhtMmtMRjNlb2hnRFladzBiZz09>

Conference ID: 847 5608 7576

Access code: 097225

Summary

The intense melting of glaciers around the world is one of the consequences of global warming and is most acute in the mountainous regions of Central Asia due to the arid climate of the region. It will inevitably lead to a water shortage against the background of population growth in the region. Experts are already paying attention to the first signs of a shortage of water resources. The volume of water resources in Central Asia directly depends on the melting of snow and glaciers in the mountains of the region. Due to climate change, the area of high-altitude glaciers is decreasing, which leads to an increase in the area of glacial lakes. This poses a potential threat to infrastructure and people's lives in the valleys. Floods caused by breakouts of glacial lakes threaten an increasing number of people. In this regard, systematic and in-depth scientific research and monitoring of the state of the cryosphere (glaciers, snow cover and permafrost) are vital. The research results help to assess the available water resources both seasonally and in the long term, which is necessary for planning the economy of the region. Climate change affects all key sectors of the economy, and the Central Asian region is one of the most vulnerable.

Realizing the importance of this topic, the Kyrgyz Republic submitted a resolution "Strengthening monitoring and research of mountain glaciers", which was adopted on November 23, 2021, within the framework of the 41st session of the UNESCO General Conference.

Also, at the initiative of the President of the Kyrgyz Republic S. N. Zhaparov, the United Nations declared 2022 the "International Year of Sustainable Mountain Development". The relevant resolution was adopted on December 16, 2021 at the Plenary Session of the 76th session of the

Roundtable "Glaciers of mountain regions of Central Asia in the conditions of climate change"
November 25, 2022.



UN General Assembly. In order to implement this resolution, by Order of the Cabinet of Ministers of the Kyrgyz Republic No. 95 dated March 1, 2022, a Roadmap for the Year of Protection of Mountain Ecosystems and Climate Sustainability was adopted.

Within the framework of the Roadmap, it is planned to hold a Round table on the topic: "**Glaciers of mountain regions of Central Asia in the conditions of climate change**" jointly with the Ministry of Emergency Situations of the Kyrgyz Republic, the Ministry of Natural Resources, Ecology and Technical Supervision of the Kyrgyz Republic, the Ministry of Agriculture of the Kyrgyz Republic, the Ministry of Foreign Affairs of the Kyrgyz Republic, in coordination with the National Commission of the Kyrgyz Republic for UNESCO, by the National Academy of Sciences of the Kyrgyz Republic and the Central Asian Institute of Applied Earth Research, with the support of the UNESCO Cluster Office in Almaty.

The event will contribute to the implementation of the roadmap through presentations, and discussions of stakeholders, highlighting opportunities, and gaps in research, education and cooperation in mountain areas, the cryosphere, and the water sector. The meeting will bring together researchers, practitioners, policymakers and decision-makers, representatives of governments at various levels, development partners from mountain regions of the world, including Central Asia, to share knowledge, best practices, and ideas. This meeting will also contribute to the achievement of SDG 6 and strengthen ties with SDG 13, SDG 11.5, SDG 15, SDG 17 and others.

Agenda

Time	Session
12:00 – 12:30	Registration of participants (round table materials will be distributed) / Coffee break
12:30 – 13:00	Opening of the roundtable (moderator - Bolot Duishenalievich Moldobekov, co-director of the Central Asian Institute for Applied Geosciences (CAIAG), Kyrgyz Republic)
	Welcoming speeches: <ul style="list-style-type: none"> • Mr. Nurlan Tashmurzayevich Aitmurzaev - Special Envoy of the President of the Kyrgyz Republic for the implementation of the of the initiative «Five-year actions for the development of Mountain Regions» • Mr. Azamat Azatbekovich Temirkulov - Head of the Department f Analysis and Monitoring of Reforms Presidential Administration, Presidential Administration • Mr. Akylbek Abduvalievich Mazaripov - Deputy Minister of Emergency Situations of the Kyrgyz Republic • Ministry of Natural Resources, Ecology and Technical Supervision of the Kyrgyz Republic (to be confirmed) • Mr. Baydyldaev Marat Kurmanbekovich – Deputy Minister, Ministry of Agriculture of the Kyrgyz Republic (<i>online</i>)



	<ul style="list-style-type: none"> • Mr. Kanatbek Ermekevich Abdrahmatov – Acting President of National academy of Science, Kyrgyz Republic • Ms. Sabira Samidinovna Soltongeldieva – Secretary General of the National Commission of the Kyrgyz Republic for UNESCO • Ms. Kristine Tovmasyan - Head of the Natural Sciences Department of the UNESCO Cluster Office in Almaty
13:00- 13:05	Group photo
13:05 – 14:30	<p>Session 1. "State of the Tien Shan and Pamir-Alay glaciers" (moderators – Bolot Duishenaliyevich Moldobekov, co-director of the Central Asian Institute for Applied Geosciences (CAIAG), Kyrgyz Republic; Thomas Saks, University of Fribourg, glaciologist, Switzerland)</p> <p><i>(Time 7-10 min)</i></p>
	<ul style="list-style-type: none"> • <u>"Current state of glaciers in the Kyrgyz Republic"</u> Mr. Bolot Duishenaliyevich Moldobekov - Co-Director of CAIAG, Kyrgyz Republic • <u>"Creation of a cryosphere monitoring network in Central Asia: current state and prospects"</u> Mr. T. Saks - University of Fribourg, glaciologist, Switzerland • <u>"Change in the area of glaciers in the transboundary basins of South-Eastern Kazakhstan and the river Yertis for the last 60 years"</u> Mr. Alexander Borisovich Egorov - Central Asian Center for Glaciology, glaciologist, Republic of Kazakhstan • <u>"State of glaciation of the Pskem basin (Western Tien Shan) in comparison with the development of other river basins with little glaciation"</u> Mr. Andrey Valentinovich Yakovlev - glaciologist, Uzbekistan • <u>"Results of modeling the mass balance of the glacier No. 139 of the Karakul Lake basin"</u> Mr. Khusrof Kabutovich Kabutov - Center for the Study of Glaciers of the National Academy of Sciences of Tajikistan, glaciologist, Tajikistan (online) • <u>"Glaciological studies of the Inner Tien Shan glaciers"</u> Mr. Rysbek Abdylidaevich Satylganov - Institute of Water Problems and Hydropower National Academy of Sciences, Kyrgyz Republic • <u>"Declining health of glaciers in High Mountain Asia"</u> Mr. Evan Miles, University of Zurich - glaciologist, Switzerland (online) • <u>"Response of Central Asian glaciers and rock glaciers to climate change and the impact of glacier surges"</u> Mr. Tobias Bolch - University of St. Andrews, glaciologist, Scotland (online)
	<p>Questions for discussion:</p> <ul style="list-style-type: none"> – The role of Central Asian states and international institutions in strengthening, monitoring and researching of mountain glaciers in the Central Asian region: vision, approaches, and problems. – Exchange of information and data.
14:30 – 14:50	Coffee break
14:50 – 16:20	Session 2 Glaciers, cryosphere, snow and river runoff



	<p>(moderator – Mr. Andrey Valentinovich Yakovlev, Uzhydromet, glaciologist, Uzbekistan, and Mr. Vitalyi Viktorovich Zaginaev, Head of the Department of Analysis and Forecast of Emergency Situations at the Ministry of Emergency Situations of the Kyrgyz Republic) <i>(Time 7-10 min)</i></p>
	<ul style="list-style-type: none"> • <u>Video - "Mountain glaciers, climate policy and COP27"</u> Ms Morgan Sig - Director, International Cryosphere Climate Initiative. (ICCINET) <i>(online)</i> • <u>"Snow cover variability in the basins of transboundary rivers of Kazakhstan"</u> Ms. Nina Valerievna Pimankina -Head of the Laboratory for Monitoring the Dynamics of Snow and Ice Resources of the Central Asian Regional Glaciological Category 2 Center under the auspices of UNESCO, Republic of Kazakhstan • <u>«Buried ice of the Tuiysu group of glaciers as a source of compensatory flow formation»</u> Mr. Vasilyi Petrovich Kapitsa - Head of the Laboratory of High-altitude Geocryology of the Central Asian Regional Glaciological Category 2 Center under the auspices of UNESCO, Republic of Kazakhstan • <u>«Assessment of the main components of the runoff of the Tien Shan rivers for the period of increased water content from 1993 to 2018»</u> Ms. Olga Yurievna Kalashnikova - CAIAG, hydrologist, Kyrgyz Republic • <u>« Monitoring of the mass balance of glaciers in the context of global climate change. Current glaciological research in Uzbekistan »</u> Mr. Gulomzhan Ungarbayevich Umirzakov - Tashkent National University, Director, Uzbekistan • <u>"Assessment and prevention of dangerous mudflow and landslide processes in the Lakhsh region"</u> Mr. Djafar Bakhodurovich Niyazov - Institute of Water Problems of the National Academy of Sciences of Tajikistan, Head. laboratory of climatology, glaciology and modelling, Tajikistan <i>(online)</i> • <u>Launch of the GEF Cryosphere Project,</u> Ms. Kristine Tovmasyan - Head of the Natural Sciences Department of the UNESCO Cluster Office in Almaty
	<p>Questions for discussion:</p> <ul style="list-style-type: none"> – Methodology and methods of monitoring and study of glaciers and associated river runoff problems and approaches to determining meltwater of the cryosphere zone in the Central Asian region. – Assessment of the flow and forecast of the water content of rivers.
<p>16:20 - 17:20</p>	<p>Session 3. Glaciers and related environmental and natural risks (moderators – Mr. Dogdurbek Toktosartovich Chontoev, Institute of Water Problems and Hydropower of the National Academy of Sciences of the Kyrgyz Republic, Mr. Ryskul Abdyzhakypovich Usabaliev – Head of Department 2, Central-Asian Institute for Applied Geosciences) <i>(Time 7-10 min)</i></p>



	<ul style="list-style-type: none"> • <u>"Challenges for disaster risk management in rapidly changing mountain environments"</u> Mr. Christian Huggel - University of Zurich, Switzerland, Mr Simon Allen, University of Zurich, Switzerland (<i>online</i>) • <u>"Monitoring of the development of outburst-prone lakes in the territory of the Kyrgyz Republic"</u> Mr. Daurbek Zhoomartovich Sakiyev - Department of Monitoring and Forecasting, Director, MES KR / Mr. Vitaliyi Viktorovich Zaginaev, Head of the Analysis and Forecasting Department of the Department of Monitoring and Forecasting of Emergency Situation under the MES KR • <u>"Moraine-glacial complexes as a form of transformation of the Tien Shan glaciers"</u> Mr. Sergey Alexandrovich Erokhin - Institute of Water Problems and Hydropower National Academy of Sciences, hydrogeologist engineer Kyrgyz Republic • <u>"Remote and ground-based studies of outburst-prone high-mountain lakes in Kyrgyzstan"</u> Mr. Ryskul Abdyzhakypovich Usabaliev – Head of Department 2, Central-Asian Institute for Applied Geosciences, Kyrgyz Republic
	<p>Questions for discussion:</p> <ul style="list-style-type: none"> – The consequences of glacier degradation and, in general, changes in water resources in the Central Asian region in a warming climate: environmental aspects and risks, solutions and adaptation. – Mitigation of the consequences of natural risks associated with climate change.
<p>16:40 -17:40</p>	<p>Session 4. Summing up/Discussion/Resolution (moderators – Mr. Bolot Duishenalievich Moldobekov, Co-Director of the Central Asian Institute of Applied Earth Research, Kyrgyz Republic; Mr. Thomas Saks, University of Fribourg, Glaciologist, Switzerland)</p>

CAIAG coordinator

Head of the Department "Capacity Development and Scientific Cooperation"

Zhaparkulova Cholpon Shabynovna

e.mail: ch.zhaparkulova@caiag.kg

tel: +996 312 55 54 54 (308) mob: +996 700 88 57 66

Executive Secretary

Momunbekov Beksultan

e.mail: b.momunbekov@caiag.kg

tel: +996 312 55 54 54 (310) mob: +996 552 64 53 42