



COP29
Baku
Azerbaijan



MELNICHENKO FOUNDATION

ARCTIC PAVILION REPORT



29th UNFCCC COP

Baku, November 11-22, 2024

The Arctic Pavilion was first created by the International Organization "Northern Forum" with the support of Andrey Melnichenko Charity Foundation and BRICS Youth Energy Agency in the "Blue" zone of the 29th Conference of the Parties to the UN Framework Convention on Climate Change in Baku, Azerbaijan, on November 11-22, 2024.

The report was compiled to present the preparation and the key results of the Pavilion's work to be taken into account when organizing similar sites at the subsequent conferences of the parties.

Author: Vladimir Vasilev, Executive Director of the Northern Forum

BACKGROUND

The Arctic is a region of enormous opportunities and serious challenges. It is the fastest growing region on Earth by all key indicators – rising temperatures, precipitation, melting permafrost and sea ice, which has a negative impact on biodiversity. If climate change in the Arctic continues as predicted by science, it will impact the world's ecosystems, economies, human health and well-being, international stability, and progress towards achieving sustainable development goals on a global scale.

Combating climate change and its impacts in the region requires coordination, cooperation and partnerships, as well as global efforts within the framework of global governance institutions. In this regard, the Conference of the Parties to the UN Framework Convention on Climate Change is the largest annual event, involving 198 countries and numerous observer organizations.


To date, the voice of the Arctic has hardly been heard at the UN Climate Conference, with few events dedicated to climate change, permafrost conservation, sustainable development of the Arctic, its impact on the global climate, or interactions between the Arctic and non-Arctic countries and regions. Until this year, the conference did not have an Arctic Pavilion. However, at a time when major regional cooperation forums are largely frozen, a global platform is needed for cooperation on the SDGs in the Arctic. In this regard, from 2023, the Northern Forum has expressed its intention to create such a platform - the Arctic Pavilion - to develop Arctic cooperation within the framework of the UN Framework Convention on Climate Change (UNFCCC), to revitalize partnerships for sustainable development in the North, emphasizing scientific research on climate change dynamics, permafrost conservation, adaptation of regional economies and indigenous communities, and youth engagement. The Northern Forum regained its observer status to the UN Framework Convention on Climate Change in 2021 and, after a long break, Vladimir Vasilev, NF Executive Director, and Halldor Johannsson, Director of the Arctic Portal from Iceland, attended the 27th Conference of the Parties in Sharm el-Sheikh (Egypt) without applying to speak at any event, but attending a significant number of sessions, both on the main program and in the pavilions, and taking part in discussions.

The main task was to determine the possibilities, role and level of participation of the Northern Forum.

In early 2023, at the suggestion of Arsenii Kirgizov-Barskii, Assistant to Chair of BRICS Youth Energy Agency, consultations were launched to consider applying for creating the Northern Forum pavilion in the "Blue" zone. The proposal was supported by Rosatom Corporate Academy and, after acknowledgement of sponsorship, an application for a pavilion was submitted to the organizing committee, which was approved. Unfortunately, in October, a month before the start of the conference, the Corporate Academy, for objective reasons, withdrew its support, which led to the rejection of the pavilion. Nevertheless, the Northern Forum delegation of 14 representatives from different regions and countries was formed and worked quite successfully in various fields.

It should be noted that in 2022, the Northern Forum got 2 quotas for in-person participation, in 2023 - 9 quotas for in-person participation and 5 quotas for online participation, which indicates an increased UNFCCC interest in the NF activities and a desire to support a new player in the global climate movement. After the 28th Conference of the Parties, the members of the NF delegation unanimously supported creation of their own space for organizing events on the topical issues of climate change and sustainable development of the Arctic and the North.

A coordination group was formed:



- Vladimir Vasilev, NF Executive Director;
- Arsenii Kirgizov-Barskii, Assistant to Chair, BRICS Youth Energy Agency;
- Alexander Shestakov, Lead Researcher, Marine Research Center, Lomonosov Moscow State University;
- Halldor Johannsson, Director, Arctic Portal

The group developed a concept for the Pavilion, outlining the main topics for organizing the sessions, prepared an application and worked with potential participants, partners and sponsors.

Undoubtedly, a lot of organizational work was done, but without the sponsor organization, the Arctic Pavilion would not have become a reality.

We express our deep gratitude to Andrey Melnichenko Charity Foundation for supporting the 5th Northern Sustainable Development Forum in Yakutsk and the Arctic Pavilion at the 29th Conference of the Parties to the UNFCCC in Baku.



Melnichenko Foundation sees natural climatic solutions as one of its key priorities and promotes them as part of the global climate agenda. The Foundation supports intensification of scientific research in the Arctic, including the international one, seeing an open global dialogue on the climate agenda as a key element for success.

We express our sincere gratitude to all organizers and speakers of the Arctic Pavilion's sessions and personally to Tatiana Makarova (design and maintenance of the Pavilion's website) and Erkhan Nikolaev (technical support of all the Pavilion's events).

MAIN ORGANIZERS



The Northern Forum was established on November 8, 1991 in Alaska, USA. Since 2012, its headquarters have been located in Yakutsk, Sakha Republic (Yakutia), Russia.

The mission of the Northern Forum is to improve the quality of life and support the regional sustainable development. Its goals are as follows: providing tools and opportunities to regional leaders and representatives in exchanging knowledge and experience and solving common problems; implementing joint socio-economic initiatives at the regional level; organizing events; securing active involvement in international forums and implementing local and global-scale projects; supporting and promoting active involvement of youth.

The Northern Forum has an observer status at the UNFCCC and the Arctic Council. It is accredited with the UN Environment Program.

General partner and sponsor



MELNICHENKO FOUNDATION

Andrey Melnichenko Charity Foundation was established to support initiatives aimed at achieving the UN Sustainable Development Goals and implementing educational projects in the regions of Russia. It supports STEM-gifted children and develops a system of "social mobility" to support talented youth in the regions of the country.

The Foundation's main priorities include combating climate change, particularly the projects related to the unique Arctic ecosystem and implementation of natural climate solutions to preserve permafrost. To achieve this goal, the Foundation supports specialized scientific research and promotes a global dialogue of scientists and opinion leaders to find solutions.

Andrey Melnichenko is a leading Russian industrialist and philanthropist. Over the past 25 years, he has founded several companies that are world leaders in their industries. The companies are an example of best practices in organizing production processes, reducing the negative impact on the environment and the highest international management standards.

Youth partner



BRICS
YEA

BRICS Youth Energy Agency is a youth organization established to secure youth cooperation between the 10 BRICS countries and the Global South in energy and climate change.

BRICS YEA actively works with young researchers and specialists on the projects aimed to shape a common vision of energy and natural resources development in the future. Its flagship project is BRICS Youth Energy Outlook, acknowledged by the energy ministries of the BRICS countries, and the reports dedicated to the topical issues of the global agenda.

PREPARATORY STAGE

The Pavilion's preparation can be divided into several consecutive and interrelated segments:

1. Elaborating the concept and the main topics of the Pavilion, identifying potential partners, session organizers and communications work
2. Working with potential sponsors
3. Preparing and submitting an application for the Pavilion. The deadline is June 15 each year
4. Confirming applications – early August
5. Confirming quotas for the delegation – late August
6. Organizing climate sessions at the V Northern Sustainable Development Forum
7. Preparing the design and program of the Pavilion, organizing a transfer of funds to the operator of COP29 – August – October

1. Arsenii Kirgizov-Barskii, with his experience of participating in COP since 2021, played a key role in elaborating the Pavilion's concept. After a series of discussions, the Coordination Group approved the main thematic areas by days and the lists for the invitation campaign.

Information on the preparation of the Pavilion was communicated to all Arctic Council structures, international Arctic organizations, a wide range of organizations and experts from Russia and other countries.

In the first six months, the Concept was presented at different international platforms:

- IX International Conference “Far East and the Arctic: Sustainable Development”, Moscow, March;
- II Forum of Northern Territories Associations and Consortiums, Tomsk, April;
- Business and Scientific Forum “The Northern Forum-China” at the VIII Russia-China EXPO, Harbin, PRC, May;
- XV International IT Forum with the participation of BRICS and SCO countries, Khanty-Mansyisk, June.

A lot of online consultations with the potential participants of COP29 and members of the NF delegation were held.

2. The Coordination Group decided to attract no more than 2 sponsors to support the Pavilion. Letters of proposal were sent to Rosatom State Corporation and Andrey Melnichenko Charity Foundation. Rosatom said it was impossible to provide financial support but was ready to assist in attracting experts and organizing some sessions.

A series of face-to-face and online meetings were held with Andrey Melnichenko Foundation, where its management decided to support the V Northern Sustainable Development Forum with organizing climate sessions and expressed their significant interest in the possibility of cooperation in creating the Arctic Pavilion. The final decision on the Foundation's support for the Pavilion was made after the Northern Forum's application was approved by the COP29 Organizing Committee; following this, the first contract for renting the premises was concluded.



3. The application for organizing a Pavilion in the COP29 "Blue" zone was promptly formed and submitted within the established deadlines.

The pavilions were divided into 4 categories: standard ones with an area of 50, 100 and 150 m², and customized ones.

After analyzing the efficiency of the pavilions at previous COPs and their cost, it was decided to submit an application for a standard pavilion of 50 m².

COP29 Blue" zone includes Baku stadium and the surrounding area. The areas allocated for the construction of the pavilions are marked in blue on the figure.



A standard-designed pavilion of 50 m² cost USD 1250,00 per m² + VAT (18%) and included:

- Space rental
- Raised floor for technical installations with exhibition carpet
- Peripheral walling and ceiling structure with basic lighting
- Branded reception counter
- Meeting room for 4 pax with shelf system for storage
- 7 branded walls in format 2x1m
- One round meeting table for 4 pax
- 19 chairs (15 for conference area and 4 for the meeting room)
- 1x 55" screen for presentations
- Small stage for presentations
- Required power connection and wall sockets (number of sockets according final size and wall configuration)
- Decoration part

The initial and final Pavilion designs differed in the arrangement of elements, which did not allow to design the required number of wall posters, but, in general, the Pavilion met the necessary requirements for the effective organization of events.

Initial design



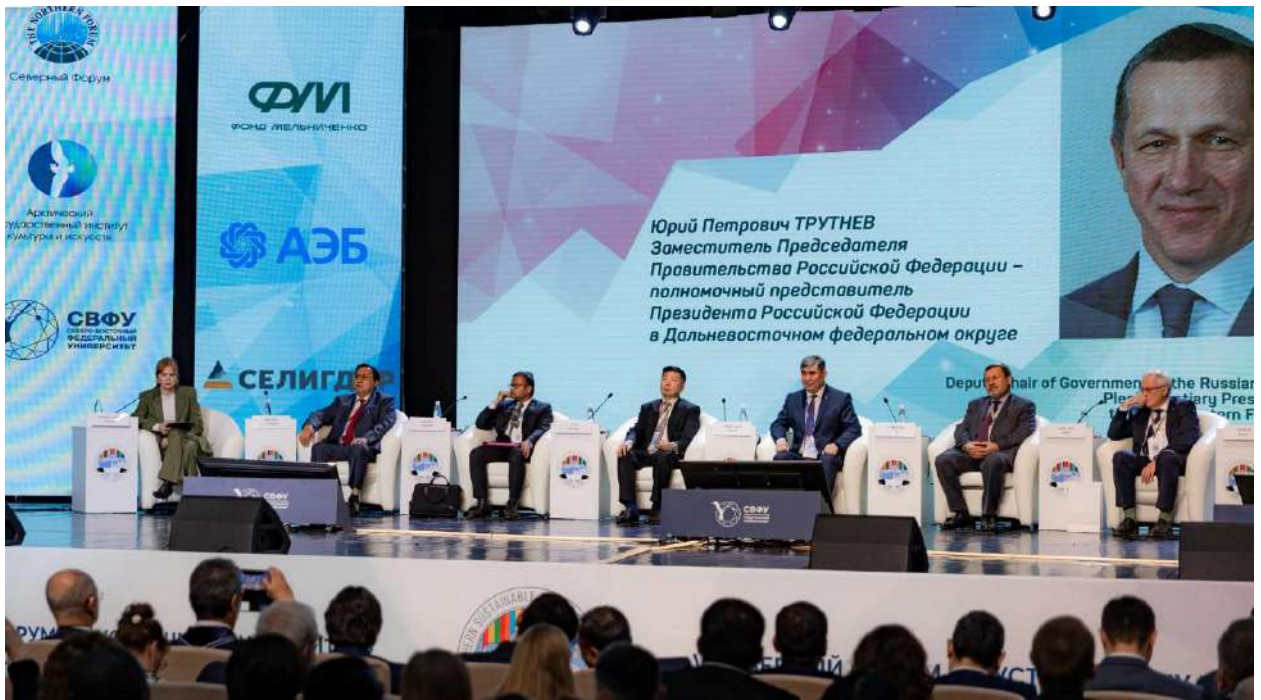
Final design



4. On August 1, the Northern Forum's application for a Pavilion was approved by the COP29 Operator, Orientation Events LLC. It was noted that the Organizing Committee had received more applications than ever before. Approval of the Arctic Pavilion's application may indicate acceptance of the need for a broader representation of the Arctic topics, as well as the active position of the Northern Forum as the UNFCCC observer.

5. In August, the number of quotas for the Northern Forum delegation was also determined: 20 quotas for in-person and 10 quotas for online participation were allocated, which is twice as many as in 2023. By this time, the core of the Northern Forum delegation had basically been formed. At the same time, a sufficient number of quotas were reserved to provide for the organizers and speakers of sessions, if necessary.

6. Thanks to Andrey Melnichenko Foundation, acting as the general partner and sponsor, the V Northern Sustainable Development Forum was organized at a high level in Yakutsk on September 24-27. The Foundation not only provided financial support, but also held a series of sessions of the II International Conference on Climate Change and Permafrost Melting, which generated great interest and contributed to substantive discussions on various aspects of climate change, which proved very helpful in preparing the Arctic Pavilion program.



The project of the Sister Ecosystems Foundation became a high pointing of the V Northern Sustainable Development Forum, which convened schoolgirls - eco-activists from Kenya, Uzbekistan and Yakutia, representing savannas, deserts and northern taiga. The project’s poster decorated the Arctic Pavilion.

During the NSDF, a Strategic Session was held to prepare for COP29; such a format can become traditional given that both NSDF and COP are annual.

7. At the beginning of August, practical preparatory work started with Narmina Magaramova, the personal manager from the Conference Operator, and Andrey Melnichenko Foundation. We would like to highlight a very prompt and effective work of the Foundation; a draft estimate and an invoice from the Conference Operator were reviewed in the shortest possible time and the funds were received without delay to the account of the Northern Forum Academy Association, acting as the Northern Forum Secretariat.

The main problem was a transfer of funds to Azerbaijan, as the payment could only be made in US dollars. The analysis of the banks operating in the Sakha Republic (Yakutia) showed that the vast majority of them were under sanctions, while others either did not work with US dollar or did not accept organizations with an annual turnover of less than RUB 50 million for foreign economic servicing.

The search for ways to transfer funds took about a month and a half. At the end of August, the Asian-Pacific Bank, which has an office in Yakutsk, and Tsifra Bank, whose nearest office is in Irkutsk, expressed their willingness to provide assistance. All other things being equal,

Yakutsk office of the Asian-Pacific Bank was chosen, a current and foreign currency account were opened, and in mid-September the first transfer was successfully organized.

The approval process was also delayed due to the difficulties of registering the documents of the Conference Operator, which did not have the signature of the manager and the seal. The general conditions for providing pavilions, a layout of the Pavilion and an invoice were presented. Despite this, the bank accepted them for work on the condition that they were certified by the NF Executive Director.

After choosing the necessary equipment for the Pavilion, the second transfer was organized in the same way.

It should be noted that the cost of renting equipment and furniture was unreasonably high. Therefore, a minimum set of furniture and equipment was ordered, and we were forced to reject the package for organizing live broadcasts (USD 135 thousand), the package for organizing simultaneous translation (about USD 35 thousand), and the organization of coffee breaks (a coffee machine with 2 baristas is at least USD 35 thousand).

It turned out later that it was right to reject these services. Technical support administrator Erkhaan Nikolaev set up live broadcasts and recording of sessions on the Northern Forum YouTube channel, connecting online speakers, remote simultaneous translation in ZOOM by Northern Forum interpreters Maria Krivtsova, Sofya Kholmogorova, Kyunnei Filippova, and Alina Skryabina, which allowed maintaining a high quality of the event service at minimal costs.



To actively promote the pavilion and fill its program, a website for the pavilion was developed: <https://arcticpavilion-cop.org>.

Tatyana Makarova, who worked at the NF Secretariat until August, was invited for this work. A link to the website was posted on the UNFCCC website, which allowed the program to be filled with events fairly quickly. All session organizers were guided, first of all, by the Pavilion website, where all changes were promptly made.

Undoubtedly, the network of the Coordination Group partners and the NF structures was involved. The main burden of coordinating the Pavilion program was taken on by Arsenii Kirgizov-Barskii, who stayed in touch with the sessions' organizers 24/7 during the conference.

The work of the Pavilion directly on site was ensured by the Northern Forum Executive Director Vladimir Vasilev and Erkhaan Nikolaev. In general, we coped, but a group of 4 people would have been the optimal option.

Perhaps due to the short preparation period for COP29 and the large number of premises that had to be built, more than 20 pavilions were not fully completed by the start of the

conference, and on the first two days the Arctic Pavilion sessions were held in a room that was not fully equipped. Nevertheless, the Pavilion became a notable event at COP29, and almost all organizers and participants of the sessions were hopeful that it would become a traditional venue at the UNFCCC Conference of the Parties.



WORK OF THE PAVILION

The Pavilion support team arrived in Baku on November 9 and met with the personal manager on November 10. On the same day, the Pavilion was accepted, despite the fact that the decoration of the walls, delivery and adjustment of the equipment were not completed on time. It was promised that everything would be installed by the beginning of the conference.

But the Pavilion was fully equipped by the third day. A group of pavilion managers was formed for those pavilions whose premises were not prepared on time, but the claims were not accepted and no penalties were provided. As a result, one pavilion did not start working, and some organizations had to decorate their pavilions on their own.

Registration for the conference did not take much time, although on November 9 the registration desks closed at 6 pm instead of the announced 8 pm.

In general, it was clear that the shortcomings of previous conferences were taken into account and the location and logistics of all the premises were convenient. All pavilions were located in one room and the distances to the premises of the main events, the offices of the delegations were short, which allowed saving a significant amount of time. Catering was well-organized: food courts and restaurants allowed serving a large number of visitors at the same time.

Another positive point is a close location of the "Green" zone. Only local companies have opened their exhibitions there, but that's another story.

The Pavilion's program frameworked 45 events, whose initiators and speakers were the experts from over 50 countries from all continents, a significant number of international organizations, such as the Intergovernmental Panel on Climate Change, UN Environment Program, UN Food and Agriculture Organization, UN Permanent Forum on Indigenous Peoples, Arctic Council Arctic Monitoring and Assessment Program, International Inuit Council, IAEA, Association of Young Polar Explorers, etc.

The Northern Forum delegation included 31 experts from Russia, the USA, Great Britain, Iceland, and India.

Some facts about COP29

196 countries out of 198 participants of the UN Framework Convention on Climate Change sent their delegations to COP29, including about 80 heads of states and governments. According to various estimates, 45 to 70 thousand participants arrived in Baku.

The conference worked 1 day longer due to disagreements on the volume of climate financing. As a result, the annual assistance to developing countries in the amount of USD 300 billion was approved.

The USA, EU, UK, Japan, South Korea and more than 110 other participants have already committed to becoming carbon neutral by 2050. However, Russia, China and Kazakhstan intend to achieve this result only by 2060, but the Russian delegation to COP29 became the first carbon neutral one. SIBUR company stated that it would compensate for the carbon footprint of the delegation's participation in the conference.

Prominent speakers at the Pavilion's sessions



Anurag Bisen
Senior Fellow,
Vivekananda
International
Foundation (India)



Bill Hare
Founder and CEO,
Climate Analytics
(Germany)



Wendel Trio
Coordinator, Northern
Forests and Climate
Change project
(Belgium)



Fatemeh Bakhtiari
(UNEP-CCC), Senior
Advisor - Climate Policy,
Loss and Damage
(Denmark)



Susie-Ann Kudluk
President, National
Inuit Youth Council
(Canada)



Rolf Rodven
Executive Secretary,
AMAP (Norway)



Maureen Gallagher
Global Ambassador,
European Federation of
Geologists (USA)



David Govoni
President, European
Federation of
Geologists (Italy)



Aditya Bahadur
Director, Red Cross Red
Crescent Climate
Centre (India)



Diane Cameron
Head, Nuclear Technology
Development and
Economics, OECD NEA
(Canada)



Landon Derentz
Senior Director of the
Global Energy Center,
Atlantic Council (USA)



Roman Kuchin
Rector, Yugra State
University (Russia)



Hindou Oumarou Ibrahim
 Chair, UN Permanent
 Forum on Indigenous
 Issues (Chad)



Natalia Dorpeko
 Executive Director,
 Global Compact Russia
 Network



Sara Olsvig
 Chair of the Inuit
 Circumpolar Council
 (Greenland)



Taisiya Afanasyeva
 Energy Economist,
 International Atomic
 Energy Agency (Austria)



Sergey Rybakov
 General Director, Nature
 and People Foundation
 (Russia)



Sergey Kononuchenko
 Ambassador at Large,
 Ministry of Foreign
 Affairs of the Russian
 Federation



Ekaterina Spiridonova
 Member of the Public
 Council, Rosnedra
 (Russia)



Rohit Kumar
 Secretary General,
 Carbon Markets
 Association of India



**Cataleya Bruce/Xinyue
 Han**, Regional Focal Point of
 SDG7 Youth Constituency
 for Oceania (China)



Yulia Vereschak
 Director of International
 programs, Protected
 Areas Embassy
 Foundation (Russia)



Paul Fuhs
 Founder, Alaska Marine
 Exchange. The Northern
 Forum Goodwill
 Ambassador (USA)



Alexei Kokorin
 Expert on climate issues,
 Nature and People
 Foundation, participant
 of the UNFCCC talks
 from 1993 (Russia)



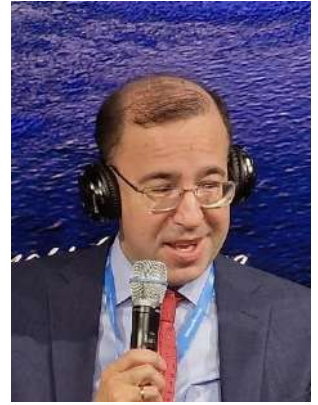
Ramon Pichs Madruga
Vice-Chair,
Intergovernmental Panel
on Climate Change
(Cuba)



Anton Vasiliev
Russian Ambassador
Extraordinary and
Plenipotentiary, The
Northern Forum
Goodwill Ambassador



Terry Callaghan
Professor of Biology,
Sheffield University,
Nobel Prize Winner
(Great Britain)



Vladimir Uskov
Head of the Climate and
Environmental Issues for
Sustainable Development
Division, Russian Ministry
for Foreign Affairs



Viktor Demin
First Vice-Rector, Tomsk
State University (Russia)



Olga Konovalova
Head of Biodiversity
Department, Moscow
State University Marine
Research Center (Russia)



Viktoria Khokhlova
APECS COP29
Delegation Chair, Spatial
Planning and Research
(Germany)



Irina Onufrenya
Head of the Wildlife
Conservation Program,
Nature and People
Foundation (Russia)



Suzan M. El-Gharabawy
National Institute of
Oceanography and
Fisheries (NIOF) (Egypt)



Martin J. Siegert
Glaciologist, Deputy Vice
Chancellor (Cornwall) at
the University of Exeter
(Great Britain)



Elise Breyton Buckle
President and CEO,
Climate Bridges
(Switzerland)



Arvea Marieni
Climate Pact
Ambassador for the
European Commission
(Italy-Belgium)

Members of the Arctic Pavilion's Coordination Group moderated a number of sessions



Vladimir Vasilev



Arsenii Kirgizov-Barskii



Alexander Shestakov

ORGANIZERS OF THE SESSIONS

1. International organization of northern regions “The Northern Forum”
2. BRICS Youth Energy Agency
3. Marine Research Center, Lomonosov Moscow State University
4. Ministry for Science and Higher Education of the Russian Federation
5. Federal Agency for Ethnic Affairs of the Russian Federation
6. Russian Asian Consortium for Arctic Research
7. Russian State Hydrometeorological University
8. National Research University Higher School of Economics
9. Yugra State University
10. National Research Tomsk State University
11. Nature and People Foundation
12. Vostok Discussion Club
13. Institute of Humanities and Indigenous Peoples of the North SB RAS
14. Union of Indigenous Peoples of Russian Soyuz
15. Norilsk Nickel PJSC
16. Protected Areas Embassy Foundation
17. Zapovedniks Center
18. Arctic Portal, Iceland
19. Intergovernmental Panel on Climate Change (IPCC)
20. UN Environmental Program (UNEP)
21. UN Permanent Forum on Indigenous Peoples
22. UN Expert Mechanism on the Rights of Indigenous Peoples
23. UN International Atomic Energy Association
24. UN Major Group for Children and Youth
25. UNEP Copenhagen Climate Centre
26. UNEP Children and Youth Major Group
27. UN European Economic Commission, Resource Management Young Member Group
28. YOUNGO — official children’s and youth organization of the UNFCCC
29. IUCN CEESP Religion, Spirituality, Conservation and Climate Justice Specialist Group
30. Arctic Monitoring and Assessment Program (AMAP), Arctic Council
31. Siberian Environmental Change Network SecNet.
32. INTERACT Non-Profit Association
33. IAEA
34. APECS (Association of Polar Early Career Scientists).
35. World Nuclear Association
36. Nuclear Energy Agency, Organization for Economic Co-operation and Development (OECD)
37. Nuclear For Climate
38. American Nuclear Society
39. Canadian Nuclear Association
40. European Federation of Geologists
41. Climate Forward Pakistan
42. Wings for Amazon Project
43. U-Report Ecuador
44. Youth Climate Council Global Alliance
45. ISHAKA 2250 – Youth NGO in Burundi
46. OnePointFive
47. AirClim - The Air Pollution and Climate Secretariat – Sweden

- 48. ReGeneration 2030
- 49. DG7 Youth Constituency
- 50. Carbon Markets Association of India (CMAI)
- 51. Universal Versatile Society (UV Society)
- 52. Lead4Earth
- 53. International Association of Students in Agricultural and Related Sciences
- 54. International Carbon Neutrality Industry Research Organization
- 55. Clean Cyclers, United Kingdom



PAVILION'S EVENTS

(in chronological order)

All sessions of the Pavilion were broadcast live and recorded on the NF YouTube channel. To watch and listen, visit: <https://www.youtube.com/@thenorthernforum777/playlists>

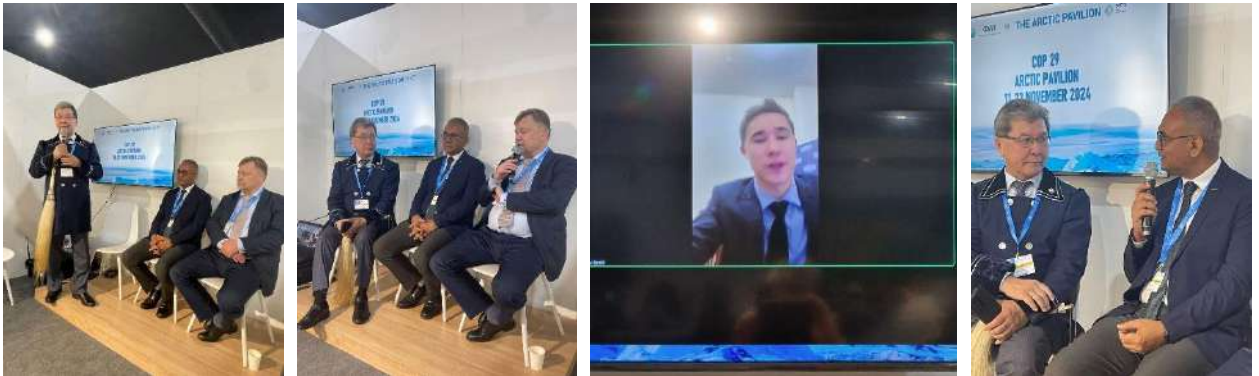
Those participants who weren't able to come to Baku, had an opportunity to speak and take part in the discussions online in ZOOM. The NF ZOOM business account was used to arrange simultaneous English-Russian interpreting.

NOVEMBER 11, MONDAY

1. *Opening of the Pavilion. Unfreezing Cooperation in the Arctic*

The session was moderated by Vladimir Vasilev, Executive Director of the Northern Forum.

Halldor Johannsson, Director of the Arctic Portal (Iceland), Anurag Bisen, Senior Fellow at Vivekananda International Foundation (India) and Arsenii Kirgizov-Barskii, Assistant to Chair of BRICS Youth Energy Agency, were the key speakers.



The speakers were unanimous in their opinion about the difficult situation in the Arctic. It was noted that it would be difficult to expect an intensification of Arctic cooperation under the Denmark chairship of the Arctic Council. At the same time, it is necessary to do everything possible to maintain the dialogue. In this regard, the potential of such organizations as the Northern Forum, which provide various forms and mechanisms for developing interaction, should be used effectively.

The phenomena occurring in the Arctic affect the climate of the entire planet, of particular concern is the melting of the Greenland glaciers, which can lead to a rise in sea levels, flooding of many coastal areas and disappearance of islands. Therefore, interaction involving, among others, Russia is absolutely crucial to develop adequate measures in response to the serious climate change-related challenges.

The speakers noted it was particularly important to address the issues of financing the Arctic projects. In this regard, the Arctic Council observers could conduct their own research. It was proposed to consider various options, including joint events of the observers and the potential of the Fund, which had once been created by the Northern Forum in Iceland.

2. *The BRICS climate agenda through the prism of international polar cooperation: challenges and prospects*

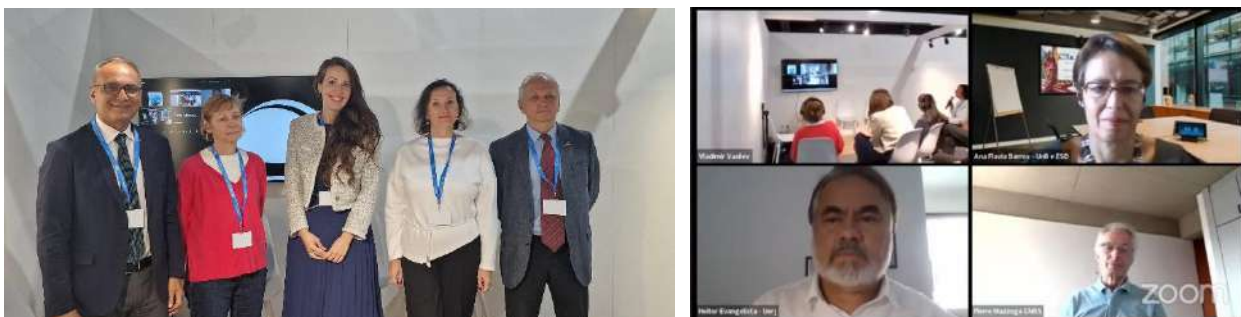
Co-moderators: Irina Strelnikova, PhD, Think Arctic-Think Global Project coordinator, Programme Co-head «International Relations: European and Asian Studies» National Research University Higher School of Economics, Head for Scientific and educational group "BRICS+ as a platform for cooperation in the Arctic: problems, prospects and development scenarios", Moscow, Russia;

Maria Lagutina, PhD, Professor, St Petersburg University, Moscow, Russia.

Speakers:

- Andrey Kostianoy, Professor, Dr., Chief Scientist, Shirshov Institute of Oceanology, Russian Academy of Sciences, Moscow, Russia
- Olga Solomina, Professor, Dr., Corresponding Member of the Russian Academy of Sciences, Professor Faculty of Geography and Geoinformation Technology HSE University, Director of Institute of Geography Russian Academy of Sciences, Moscow, Russia
- Anurag Bisen, Senior Fellow, Vivekananda International Foundation, India
- Heitor Evangelista, Professor of Nuclear Biosciences at the Rio de Janeiro State University of Brazil, Brazilian Antarctic Program, Brazil
- Ana Flavia Barros, Director of the Brasilia Research Center at Earth System Governance, Brazil

The session discussed in detail the Arctic strategies of the BRICS countries, all of which, without exception, show interest in cooperation in the polar regions. Many Asian countries have developed their own strategies in relation to the Arctic. A sufficient number of joint projects are being implemented, but most of them do not focus on the Arctic yet.



At the same time, the session considered specific examples of the potential and prospects for cooperation. For example, Andrey Kostyanoy presented the developments to create a digital twin of the Caspian Sea, and Olga Solomina presented the results of studies of glaciers in the Russian Arctic. The impossibility of the observers' active participation in the activities of the Arctic Council stimulates the analysis and creation of new forms and mechanisms of cooperation, primarily in the BRICS system, since Russia is the only Arctic member country of this association, now being in a certain isolation in the Arctic, and BRICS allows for parallel interaction. The issue of creating a BRICS scientific station on Spitsbergen, resisted by Western countries, is being discussed. BRICS countries can also establish effective cooperation in Antarctica and the Third Pole region. The importance of active involvement in the events of the International Polar Year was noted, since Brazil is also a polar country.

NOVEMBER 12, TUESDAY

3. Synthesis of Academy and traditional knowledge for adaptation of indigenous peoples to climate change in Russia

Moderator: Viacheslav Shadrin, Deputy Director for Science, Institute of Humanities and Indigenous Peoples of the North SB RAS

Presentations were delivered by the NF Executive Director Vladimir Vasilev and the experts of the Institute of Humanities and Indigenous Peoples of the North SB RAS: Sardana Boyakova, Viktoria Filippova, Lilia Vinokurova, Alexander Suleimanov, and Svyatoslav Fedorov.



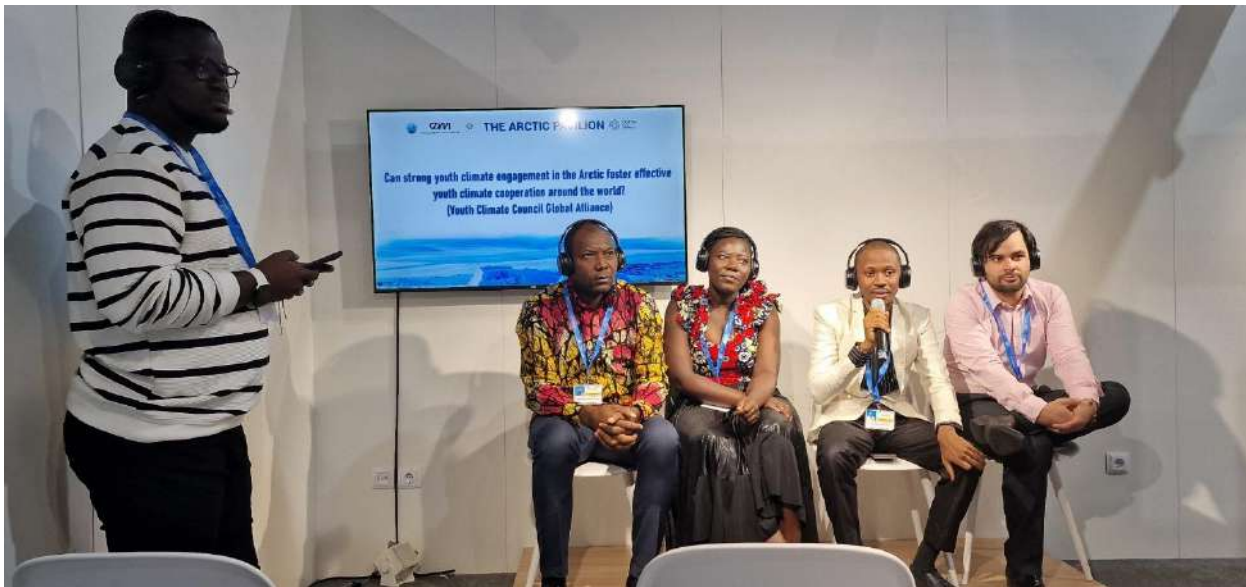
The participants of the scientific seminar discussed how the Northern Forum supported projects to preserve traditional ecological knowledge and the main areas of research of the Institute on this topic, such as "Community monitoring as a tool for the adaptation of indigenous peoples to climate change", "Building environmental education programs in Siberia (Yakutia) based on the synthesis of traditional and scientific knowledge", "Changing the water world: traditional knowledge and adaptive practices of indigenous peoples of Yakutia", "Winter everyday practices of indigenous peoples of Yakutia. XX-XXI centuries", "In partnership with Cold: synthesis of traditional and scientific knowledge on managing cryogenic processes in the modern practices of life of rural communities of Yakutia".

4. Can strong youth climate engagement in the Arctic foster effective youth climate cooperation around the world? (Youth Climate Council Global Alliance)

Moderator:
Margaret Ipraim, Youth Climate Council Global Alliance

- Speakers:
- Abdulhamid Tahir Hamid, YCC Nigeria
 - Matthaues Memezez, YCC Brazil
 - Sunday Geoffrey Mbafoambe, YCC Cameroon

Members of the Youth Climate Council Global Alliance from Cameroon, Ghana, Nigeria and Brazil tried to demonstrate how effective youth engagement in the Arctic climate issues could promote youth climate cooperation worldwide, as they felt that youth cooperation on climate change is currently fragmented. Using the example of YCC Denmark, the speakers highlighted the benefits of institutionalized youth advisory bodies and their impact on climate decision-making at the local and national level, presenting different forms of youth engagement in climate policy-making. The aim of the session was to show how momentum created in one country or region (in this case the Arctic) can have tangible impacts worldwide.



Youth Climate Council Global Alliance (YCC GA) is a youth network of advisory bodies and platforms that aims to influence climate policy development and raise ambition for climate action. Seven Youth Climate Councils are part of the YCC GA. They advocate for the inclusion of youth in climate decision-making processes at national and local levels.

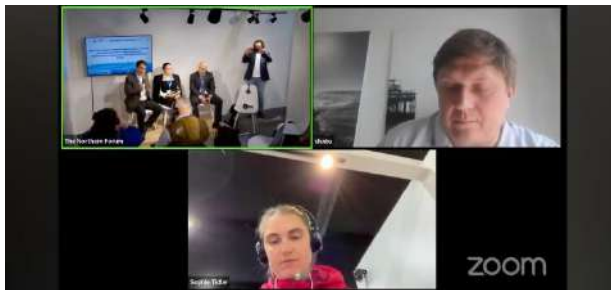
5. Climate Crisis in the Context of Standards Development for Business and Indigenous Peoples Relationships

Moderator:

Aleksei Tsykarev, Program Director of the All-Russian Capacity Building Program «School of Civic Diplomacy of Indigenous Peoples of Russia», UN Expert on the Rights of Indigenous Peoples in 2013 – 2022

Speakers:

- Hindou Oumarou Ibrahim, Chair, UN Permanent Forum on Indigenous Issues;
- Natalia Dorpeko, Executive Director, Global Compact Russia Network
- Sergey Timoshkov, Advisor to the Head of the Federal Agency for Ethnic Affairs
- Antonina Gorbunova, Member of UN Expert Mechanism on the Rights of Indigenous Peoples, Executive Director of the Union of Indigenous Peoples «Soyuz»
- Rachid Alouach, Responsible for the joint program of the Russian Federation and the Office of the UN High Commissioner for Human Rights
- Lyudmila Alferova, President of the Public Organization of the Khanty-Mansyisk Autonomous Okrug «Salvation of Yugra»
- Alexander Shaburkin, Head of the Expert and Analytical Section of the Department of Federal and Regional Programs of PJSC MMC Norilsk Nickel
- Viktor Bilanin, Head of Executive Committee, Regional Association of Indigenous Peoples of the North of Krasnoyarsk Krai



Indigenous peoples are among the first to experience the effects of climate change, and their impact may be exacerbated by extensive development and green economy projects on their lands. However, a cumulative effect of economic activity and climate change can be brought under control if the standards of relations between indigenous peoples, states and private sector are high. Such standards are being developed in Russia and other countries.

The Chair of the UN Permanent Forum on Indigenous Issues, Hindu Oumarou Ibrahim, noted that international efforts may not be enough to support indigenous peoples in all aspects, especially when it comes to economic development and the activities of large corporations. She called on everyone to work actively to ensure that indigenous peoples are involved in decision-making processes at the national level. Other speakers agreed with this: indigenous issues cannot be discussed without their direct participation in the discussions. A legal basis for recognizing the rights of indigenous peoples must be ensured. At the same time, it is necessary to conduct training on preparing corporate documents so that all participants in the negotiation process clearly understand the goals and objectives of specific agreements between the state, companies and indigenous communities.

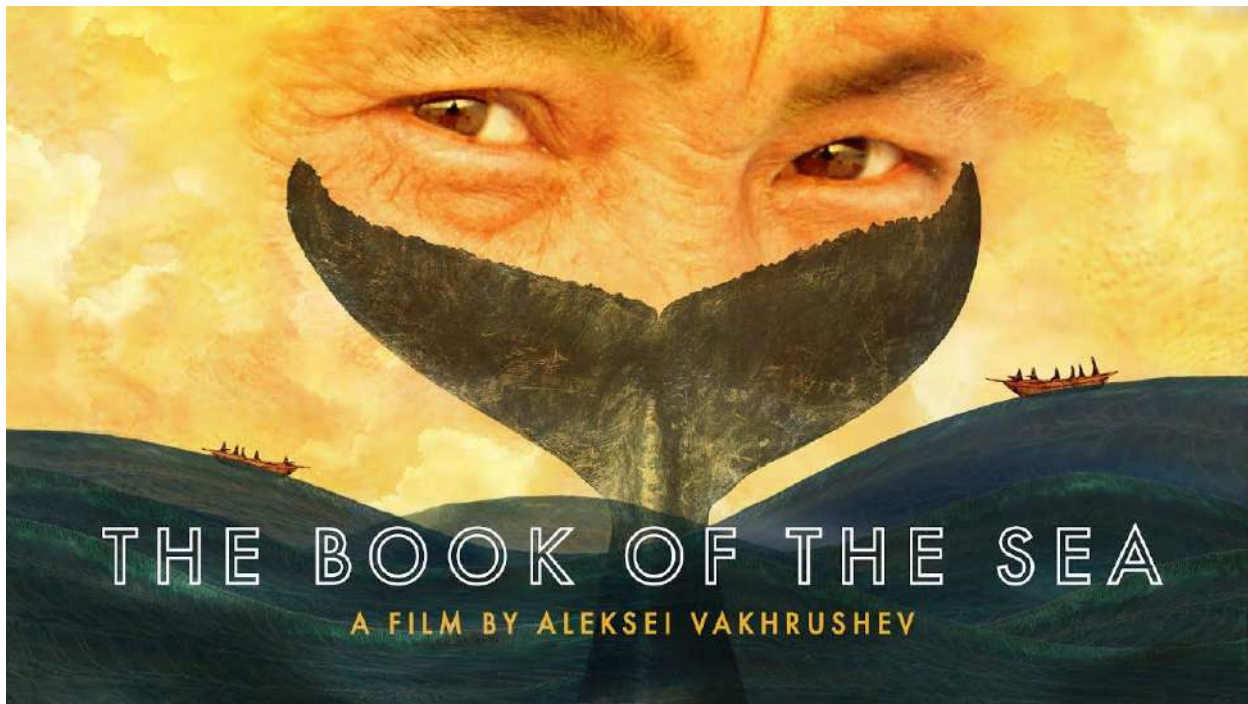
Policy of Norilsk Nickel JSC on supporting indigenous communities, which pays significant attention to this area, was brought as an example.

https://vk.com/wall710942842_122

6. *The Book of the Sea documentary film*

The pavilion screened a documentary film by Chukotka director Alexey Vakhrushev, “The Book of the Sea,” which tells about the traditions of Chukotka whalers and their modern life.

“The animation is based on the myth “About the Woman Who Gave Birth to a Whale,” which is fundamental to the culture of Arctic sea hunters. The simple idea of kinship between people and whales, the “same blood” that connects them, their natural and strong unity – this is the basis of traditional culture and special relationship of hunters to sea animals.” (<https://knigamoryafilm.ru>)



The film was awarded at many national and international festivals, including the Main Prize "Material Culture" of the Royal Anthropological Institute of Great Britain and Ireland (RAI) Festival 2019, "Best Direction" of Cheboksary International Film Festival 2019, Grand Prix of the International Ethnic Film Festival "Heart of Slovenia" 2019, Best Film in Indigenous Languages of the Imagine NATIVE Film+Media Art Festival (Canada), etc.

NOVEMBER 13, WEDNESDAY

7. GHG Flux Monitoring Network in Arctic-Boreal Domain of Northern Eurasia

The co-chair of the Russian-Asian Consortium for Arctic Research, Yugra State University, held an excellent session on the results of scientific research of a large international network for monitoring greenhouse gas fluxes in Northern Eurasia.

Moderator: Egor Dyukarev, Institute for Monitoring of Climatic and Ecological Systems Siberian Branch of the Russian Academy of Sciences, Tomsk; Yugra State University, Khanty-Mansyisk

Speakers:

- Roman Kuchin, Rector, Yugra State University
- Olga Kuricheva, Senior Research Fellow, Severtsov Institute of Ecology and Evolution RAS, Moscow
- Evgeniy Zarov, Research Education Center “Environmental Dynamics and Climate Change”, Yugra State University, Khanty-Mansyisk
- Alexander Olchev, Professor, Lomonosov Moscow State University
- Anatoliy Prokushkin, Sukachev Forest Institute SB RAS, Krasnoyarsk



The works dedicated to the contribution of permafrost and wetlands to the total volume of methane emissions and the increase in greenhouse gas concentrations are of particular interest. The presentations demonstrated a large array of data obtained by Russian stations, including the results of modeling, where a significant number of scientists from the leading Russian scientific organizations were involved. Much attention in the studies was paid to the unification of methods and data interpretation.

8. IT-Solutions to Combat Climate Change

Yugra State University held another session on the implementation of information technologies at studying climate change. It should be noted that, at the suggestion of the Northern Forum Chair, an information and analytical center on climate change had been established at the University.

Moderator: Irina Akhmedova, Associate Professor at the Graduate School of Ecology, Yugra State University, Khanty-Mansyisk

Speakers:

- Sergei Afanasyev, Vice-Governor of Khanty-Mansyisk Autonomous Okrug – Yugra, Director of Yugra Economic Development Department
- Anna Novikova, Head of Competition Development Division, Yugra Economic Development Department
- Roman Kuchin, Rector, Yugra State University
- Alexei Kabonen, postgraduate student, Petrozavodsk State University
- Evgeniy Zarov, Research Education Center “Environmental Dynamics and Climate Change”, Yugra State University, Khanty-Mansyisk
- Egor Safonov, Associate Professor, Institute of Digital Engineering, Yugra State University



The speakers introduced information technologies and systems used to study and monitor climate change, assess the state of wetlands and their contribution to maintaining the carbon balance. In Yugra, the main climate risks have been assessed and measures are being taken to mitigate them. First of all, work is underway to preserve forest lands, the "Forest Keeper" program has been developed for this purpose. Satellite monitoring is used to track logging and flood situations. The University is expanding its observation network, creating carbon

polygons, including those engaging industrial companies. A lot of work is being done to map the territory of the Okrug for creating protected natural areas. Interactive methods and virtual reality technologies are also widely used in teaching students. In general, the session became very informative for the participants, demonstrating a wide range of work carried out in Yugra at both the governmental and scientific levels.

9. SMR for Arctic Sustainable Development: mining in remote applications



COP29
Baku
Azerbaijan

THE POTENTIAL ROLE OF SMRS FOR ARCTIC SUSTAINABLE DEVELOPMENT:
A discussion about Small Modular Reactors for remote Northern mining and communities

Keynote Remarks:

Diane Cameron
Head of Nuclear Technology Development and Economics,
OECD Nuclear Energy Agency

Fireside Discussion:

Madeleine Redfern
Chief Operating Officer,
ConArctic Inuit Network

Landon Derentz
Senior Director, Global Energy Center
Atlantic Council

Peter Lang
President,
Dunedin Energy Systems Ltd

Taisiya Afanasyeva
Energy Economist,
International Atomic Energy Agency

NEA
NUCLEAR ENERGY AGENCY

Moderator: Diane Cameron, Head of Nuclear Technology Development and Economics, OECD NEA



Global demand for Arctic resources, critical to the green transition, highlights the importance of developing clean energy solutions tailored to the region's needs.

The session looked at the importance of small modular reactors for communities and the mining industry. Small modular reactors (SMRs) offer a promising solution to these challenges, particularly for the sectors that are difficult to decarbonize, such as mining. SMRs can provide reliable, low-carbon power to remote mining operations, reducing reliance on diesel. As global demand for minerals increases, SMRs could support mining operations in off-grid locations, reducing their carbon footprint and meeting production needs. The session looked at how nuclear power can contribute to sustainable development in the

Arctic, with a particular focus on reducing the carbon footprint associated with the growing global demand for mining in the region.

10. Arctic for All: Gen X to Z Multidisciplinary Collaboration, Critical Minerals, and Green Energy Production



Moderator: Maureen Gallagher, Global Ambassador, European Federation of Geologists (Belgium)

Speakers:

- David Govoni, President, European Federation of Geologists (Italy)
- Bianca Neumann, Chair, United Nations Resource Management Young Member Group Economic Commission for Europe (Germany)
- Daniel Caceras Batra, Regional Representative to Sustainable Ocean Alliance (Peru)

The European Federation of Geologists held a session “Arctic for All: Multidisciplinary Collaboration from Gen X to Gen Z, Critical Minerals and Green Energy Production” to raise awareness of the importance of a substantive and broad-based discussion on the challenges of obtaining the critical raw materials needed for green energy. Our collective history of mining is that the developed world is pushing industry towards the Global South and the Poles. This is a critical topic that is virtually absent from the COP. Protecting fragile Arctic ecosystems will be critical and will increase pressure on funding for these operations.

https://www.linkedin.com/posts/mogallagher_the-northern-forum-activity-7262383999677792256-3g3J?utm_source=share&utm_medium=member_desktop

11. Mental Health at the Intersection of Loss and Damage: Empowering Arctic Youth and Indigenous Communities

Moderator: Fatemeh Bakhtiari (UNEP-CCC), Senior Advisor – Climate Policy, Loss and Damage, Denmark



Speakers:

- Susie-Ann Kudluk, President, National Inuit Youth Council, ICC Delegate
- Aditya Bahadour, Director, Red Cross Red Crescent Climate Center, India
- Maya-Natuk Rohmann Fleischer, Youth advocate for the devastating consequences of the Arctic melting, not only for communities in Greenland but also for the whole world
- Courtney Howard, Emergency Physician in the subarctic in Canada and Vice Chair of the Global Climate and Health Alliance
- Allison Crawford, Chief Medical Officer, 9-8-8 Suicide Crisis Helpline; Professor, Department of Psychiatry and Dalla Lana School of Public Health, University of Toronto; Lead, UArctic at the University of Toronto
- Vincent Paquin, Clinician Investigator Program, PGY-6 Psychiatry, McGill University

The session, organized by the UNEP Climate Centre in Copenhagen, discussed the health aspects of loss and damage, with a particular focus on the mental health and well-being of young people. Loss and damage from climate change is already disrupting the lives of children and young people, affecting their mental health, physical health and socio-economic future. From eco-anxiety caused by extreme weather events and displacement, to the loss of cultural heritage and livelihoods, young people are disproportionately vulnerable to these climate impacts. The event presented the case studies, best practices and policy recommendations that will help communities protect the well-being of younger generations, while building resilience and hope in the face of climate change. Indigenous representatives, however, emphasized the need to actively engage Arctic indigenous communities, who are directly affected by climate change and have developed adaptation mechanisms over centuries, in the discussions and decision-making processes.

12. Indigenous Voices from Himalayas, Karakoram and HinduKush (HKH) Region: Cryosphere in Crisis

Moderator: Didar Ali, Project Coordinator at Climate Forward Pakistan

Speakers:

- Asmita Rawat, Research Fellow at Nepal Institute for Policy Research
- Fassih Bin Tariq, Project Coordinator at ACT International
- Manisha Arrya, Program & Community Manager at EarthJust Ecosystems
- Rajan Thapa, National Project Manager at WWF Nepal



The event aimed to shed light on the critical issue of glacier melting in the GKH region. Often referred to as the “Third Pole,” this area is home to over 7,000 glaciers that are rapidly melting due to climate change. The event focused on the profound impacts of climate change on local and global ecosystems, water resources, and livelihoods of the indigenous communities that depend on these glaciers. The event aimed to strengthen indigenous perspectives on cryosphere degradation, promoting a deeper understanding of how this crisis impacts not only the Arctic, but also the regions that are interconnected through the global climate systems. Melting glaciers lead to catastrophic events (avalanches, floods) and changes in people’s lifestyles. Flooding of agricultural lands forces people to migrate to other regions or turn to the tourism industry. The impact of glaciers on communities is profound, changing both culture and identity.

NOVEMBER 14, THURSDAY

13. Explore areas of collaboration between the implementation of NDCs of Arctic and LDCs

Moderator: Mohamed Langston Diagne, Food and Agriculture Organization, Senegal

Speakers:

- Audry Rusangwa, Founder and Executive, ISHAKA 2050, Burundi
- Elizabeth Gulugulu, Biodiversity and Climate Change Expert, YOUNGO, UN Climate Change
- Sunrit Panda, Project Manager, Nirvana Carbon Solutions, student, Princeton University, USA
- Lyzianah Emakoua, Founder and Executive, Center for Community Impact and Sustainable Development, Sierra Leone
- Emma Limor, co-Founder, Nirvana Carbon Solutions, USA

The speakers at the session discussed what nationally determined contributions are and what the links are between the Arctic (developed) and developing countries in this area. The importance of capacity building through technology transfer, investment and knowledge sharing with developed countries was noted.



Given the high level of development of alternative energy sources in the Arctic, it is necessary to adapt their application to the conditions of the Global South. The participants were unanimous in their opinion that financial commitments of the developed countries to the countries of the Global South remain insufficient, since trillions of dollars are required for Africa alone by 2030 to overcome the effects of climate change.

Youth leaders from different countries drew attention to the need for more active involvement of young people in solving the growing problems and supporting their projects.

<https://www.linkedin.com/company/ishaka-2250/posts/?feedView=all>

<https://www.linkedin.com/in/lyzianah-e-9a49b313a/recent-activity/all/>

14. Capacity Building and Expertise of Indigenous Peoples in the Climate Agenda: Capacity Befuddling Programs and Engagement with Academia

Moderator: Aleksei Tsykarev, Program Director of the All-Russian Capacity Building Program «School of Civic Diplomacy of Indigenous Peoples of Russia», UN Expert on the Rights of Indigenous Peoples in 2013 – 2022

Speakers:

- Antonina Gorbunova, Member of UN Expert Mechanism on the Rights of Indigenous Peoples, Executive Director of the Union of Indigenous Peoples «Soyuz»
- Sergey Timoshkov, Advisor to the Head of the Federal Agency for Ethnic Affairs
- Morse Flores, Coordinator of the UN Indigenous Peoples Fellowship Program and UN Voluntary Fund for Indigenous Peoples
- Nechey Serotetto, representative of the Association of Indigenous Peoples of the North "Yamal – to the Descendants"
- Milanina Tankayeva, Association of Indigenous Peoples of the Republic of Altai
- Victoria Darmayeva, President of the Association of Indigenous Peoples of Zabaikalsky Krai
- Andrey Metelitsa, Chair of the Association of Indigenous Peoples of Kamchatka Krai



The second session of the Union of Indigenous Peoples "Soyuz", the Federal Agency for Ethnic Affairs of Russia and the UN Expert Mechanism on the Rights of Indigenous Peoples was dedicated to discussing various national and international programs to support traditional knowledge and teach indigenous peoples innovative technologies.

There are many global platforms, but it is necessary to understand their relationship with the national and regional levels and their connection with indigenous communities. At the same time, it is necessary to take into account the specific interests and goals of various groups of indigenous peoples (youth, women). Building the capacity of indigenous peoples at the global level is impossible without organizing information and training, financing such activities.

At the national level, it is important to create indigenous institutions and expert mechanisms that develop certain guidelines for the federal government to develop support programs in various areas, i.e. state support works more effectively with bottom-up initiatives.

https://vk.com/wall671449_5278

15. The Arctic in a Changing Climate and its Global Impacts

The Arctic Council's Arctic Monitoring and Assessment Program Working Group (AMAP) presented their updated report on climate change in the Arctic. AMAP Executive Secretary Rolf Rødven and his deputies Maria Kvalevåg and Heïdi Sevestre reported on the much faster pace of warming in the Arctic, the increased sea acidity and frequency of catastrophic events (floods, fires). Instead of the expected 1.5 degrees, the annual increase in air temperature in the Arctic is 3 degrees. AMAP's report includes the most up-to-date knowledge of what is happening in the Arctic, at the same time, the authors note the insufficient data from the Russian Arctic in recent years.



The NF Executive Director Vladimir Vasilev was asked to moderate the second part of the session - on the involvement of the Arctic Council observers in AMAP activities. A very active discussion took place on the forms and mechanisms of work. They discussed the potential for interaction between the countries and organizations - observers to the Arctic Council, prospects for cooperation with Russia and the need for joint research in the countries of the

"Third Pole". The Northern Forum can assist AMAP in organizing research in the Russian Arctic and organizing joint events in different parts of the world.



16. Role of Nature based Education in community adaptation and building resilience

Moderator: Shantanu Mandal, Nature Based Education Task Force IUCN

Speakers:

- Martin Frick, Director, World Food Program
- Carolin Fraude, Affiliated researcher, RIFS (Research Institute for Sustainability, Potsdam), Germany
- Viacheslav Shadrin, Chair of Yukagir Peoples Elders Council, Deputy Director, Institute of Humanities and Indigenous Peoples of the North SB RAS, Russia
- Shubam Agrawal, Executive Head of SDG at Gram Saarthi, Youth representative, India



The moderator set the objectives of the discussion in an interesting way, asking not only the speakers, but also the participants to say briefly what cultural phenomenon (poems, paintings, etc.) they associated nature with for the first time. In addition, he focused on defining the identity and boundaries of the concept of "indigenous peoples", their connection with nature. As a rule, indigenous peoples note their continuous connection with nature, identifying themselves as part of nature.

Separation from the traditional way of life, when children are sent to boarding schools for education, negatively affects the sustainability of indigenous communities. Creation of national schools, where traditional ways of farming would also be taught, as well as the development of nomadic schools could become some solutions.

Participants noted the need for a wider promotion of traditional knowledge to improve literacy, for example, among city dwellers who do not encounter wild animals and wildlife in their everyday lives and do not fully understand the possible risks to life.

NOVEMBER 15, FRIDAY

17. Standards and Skills: What's needed to manage Critical Minerals for the Energy Transition?

Moderator: Matthias Muehlbauer, Co-Founder & COO, OnePointFive

Speakers:

- Bianca Derya Neumann, UNECE EGRM Resource Management Young Member Group
- Efreem Bryer, Senior Lead Manager, Public Policy and Economic Graph
- Maureen Gallagher, Global Ambassador, European Federation of Geologists, Belgium



We are halfway through the energy transition, with a trillion dollars invested in the past few decades and another trillion expected in the next four years (RMI, 2024). While countries and corporations have set ambitious targets for 2050, we face a critical challenge: a shortage of skilled workers to meet these targets. Now is the time to invest in people, as they are essential to achieving collective climate goals. One of the key challenges is how to upskill the workforce to meet the demands of the energy transition while ensuring a just and equitable transition. This includes not only energy production, but also the provision of critical minerals to support this transformation. The session explored these and other important issues in ensuring human capital for the transition.

https://www.linkedin.com/posts/matthiasmuehlbauer_what-do-you-know-about-the-intersection-about-activity-7262684288934936577-OYsD?utm_source=share&utm_medium=member_desktop

18. Protecting northern forests - key to mitigating climate change

Moderator: Wendel Trio, coordinator Northern Forests and Climate Change project, Belgium

Speakers:

- Bill Hare, Founder and CEO, Climate Analytics, Germany
- Andrey Laletin, Director, Friends of the Siberian Forests, Russia

Presentation of a report commissioned by Climate Analytics on the role of boreal forests in mitigating climate change. A panel discussion on the report's findings and conclusions was held with governments, NGOs, scientists and indigenous peoples. The main message is that boreal forests play a key role that is often overlooked and undervalued. In particular, the boreal forests of the Arctic store vast amounts of carbon in their soils, and protecting these forests is a key element to any global climate change mitigation strategy.



Boreal forests occupy half of all forests on the planet. At the same time, only 10% of them are included in the protected natural areas, while more than 26% of tropical forests are under protection. Andrey Laletin introduced the forest management system in Russia; all forests are federal property and a significant management apparatus has been created. At the COP on biodiversity in Colombia, it was noted that it is necessary to combine efforts on both conventions: climate and biodiversity, to ensure proper protection of forests, including boreal ones.

19. *Climate Connect: Bridging Arctic and South Asia for Sustainable Futures*



Moderator: Caterina Bittendorf, Climate Advocate and Researcher, Sweden

Speakers:

- Prasun Subedi, Founding Member at World Food Forum Nepal
- Parneet Kaur, Founder Poetry for Planet
- Kamran Ali, Co-Founder GB Chapter Fridays For Future Pakistan
- Sofie Ohlsson, International Coordinator PUSH Sverige
- Katherine Khrykina, Clean Energy Ambassador

- Laura Sólveig, Lefort Scheefer, Circularity Representative of the Young Icelandic Environmentalists
- Hanna Höijer, Finland's Youth Delegate for Climate

Climate Forward from Pakistan held the second session in the Arctic Pavilion. Experts are unanimous in the opinion that it is necessary to study each other's experience, exchange innovative solutions to achieve sustainable development on the planet in general. In the Arctic, in particular, Finland has created suitable platforms that can be adopted as an example of active involvement of different segments of the population: Sami Climate Council, Youth Climate Council. At the same time, the need for transnational connections is emphasized, since the regions of the "Third Pole" have similar characteristics with the Arctic regions, but there is a lack of awareness between the two macro-regions. Perhaps it would be advisable to create some common platforms, including communities in various social networks.

20. Critical Minerals for Energy Transition: Intergenerational Perspective



Moderator: Arsenii Kirgizov-Barskii, Assistant to Chair, BRICS YEA

Speakers:

- Sara Olsvig, Chair of the Inuit Circumpolar Council, Greenland
- Kristi Disney Bruckner, IRMA, USA
- Natalia Mrowczynska, Project Coordinator at RMYMG, Board Member at ReGeneration 2030, Great Britain
- Anna Loginova, Expert of the International Cooperation Department, Russian Energy Agency, BRICS YEA Young Expert Group on Resource Management and Critical Minerals for Energy Transition (RMCM)
- Hugo Bernat, Events & Activities lead at Nuclear for Climate, Tractebel (ENGIE Group), Belgium

Climate change is a global challenge that requires a significant transition to low-carbon energy technologies. However, current climate and energy policies remain highly resource-intensive: demand for critical minerals is expected to quadruple by 2040 if the world is on track to achieve net zero. If managed responsibly, critical minerals can become a new foundation for sustainable economic growth, benefiting Arctic communities. This challenge once again reminds us of the urgent need for international cooperation with intergenerational equity at its core. The main idea of this event is to make the Arctic energy

transition truly clean and fair, while embedding intergenerational equity in resource management.



The BRICS Youth Energy Agency’s 2024 Outlook was presented.

https://www.linkedin.com/posts/kristi-disney-bruckner_un-climate-change-conference-2024-cop29-arctic-activity-7262894253767311360-k450?utm_source=share&utm_medium=member_desktop

21. Nuclear Energy, a sustainable source of low carbon energy for the Arctic

Moderator: Henri Paillere, Head of the Planning and Economic Studies Section at IAEA, Austria

Speakers:

- Taisiya Afanasyeva, Energy Economist, IAEA, Austria
- George Christidis, VP of Government Relations and International Affairs, CNA
- King Lee, Head of Policy and Industry Engagement, WNA, Great Britain
- John Kotek, Sr. VP of Policy Development and Public Affairs, NEI, USA



Globally, nuclear power provides just under a quarter of all low-carbon electricity, and the latest IAEA projections suggest that the installed capacity is set to increase by 150% by 2050 to around 950 GW. A major new-construction effort is needed, and the IAEA sees small modular reactors (SMRs) potentially accounting for 24% of all new nuclear capacity commissioned by mid-century. As well as electricity, SMRs can also provide heat, as at Academician Lomonosov floating nuclear power plant in north-east Siberia.

https://www.linkedin.com/posts/henri-paillere-1881537_a-busy-day-ahead-at-cop29-at-12pm-i-activity-7263029710727639040-C7Hi?utm_source=share&utm_medium=member_desktop

22. Arctic-Amazon Indigenous Climate Dialogue

Moderator: Arsenii Kirgizov-Barskii, Assistant to Chair, BRICS YEA

Speakers:

- Nechey Serotetto, Specialist at the National Center for Reindeer Herding within the Russian Center for Arctic Development, Board member of the Association of Indigenous Peoples of the North "Yamal to Descendants", Russia
- Kaianaku Kamaiura, coordinator of advocacy in the Amazon, deliberative advisor at Coiab, communicator for the indigenous committee on climate change. Graduated in Intercultural Education, with a Master's degree in Human Rights, specializing in climate finance for indigenous peoples.
- Vitória Pinheiro, Focal Point in Latin America and the Caribbean of the UN Constituent Assembly of Children and Youth in Sustainable Communities, from Zumbi dos Palmares, on the outskirts of Manaus. Founder of Palmares Laboratório Ação.

In both the Arctic and the Amazon, indigenous peoples and local communities play a critical role in managing much of the biodiversity, preserving nature-oriented knowledge and values that have been accumulated over generations. In Latin America, indigenous peoples are at the forefront of protecting the ecosystem of the world's largest tropical forest, which is also a carbon sink, absorbing emissions that are driving the climate crisis. By combating the effects of climate change, deforestation and forest fires, indigenous peoples of the Amazon are protecting the global ecosystem from further warming and disasters.



In the Arctic, indigenous communities are watching their home, the Arctic, warm two to three times faster than the rest of the world. The loss of sea ice and melting permafrost over the past few decades have affected indigenous peoples of the Arctic, significantly altering their way of life and creating serious challenges to sustainability. Indigenous communities have lived in the region for thousands of years, accumulating extensive and detailed knowledge of the environment and human relationships with the lands, waters, air, plants, and animals found there. This information is invaluable in itself, but also because of the depth of time and breadth of coverage that cannot be found in any other source. Yamal reindeer herders rely

on natural phenomena, animal behavior, and plant growth periods in their daily lives, and can make short- and medium-term weather forecasts and plan their work based on them. Relying on traditional knowledge when planning territorial development strategies is especially important to minimize anthropogenic impacts on ecosystems.

The representatives of Amazonia believe that indigenous communities should not adapt their needs to existing climate change mechanisms, but rather that indigenous peoples' interests should be taken into account when developing such mechanisms, including in terms of financing. Financial mechanisms include too many requirements and are far from reality; they should be adapted to the real situation.

NOVEMBER 16, SATURDAY

23. Climate agenda: from Azerbaijan to Brazil

Moderator: Sergey Rybakov, Program Director, Vostok Discussion Club; General Director, Nature and People Foundation

Speakers:

- Dinara Kemelova, Special Envoy of the President of the Kyrgyz Republic on mountains
- Alexei Kokorin, Expert on climate issues, Nature and People Foundation, participant of the UNFCCC talks since 1993
- Sergey Kononuchenko, Ambassador at Large, Ministry of Foreign Affairs of the Russian Federation
- Svetlana Lukash, Russian G20 Sherpa (video address)
- Erik Solheim, The Sixth Executive Director UN Environment Program (UNEP), Under-Secretary-General of the United Nations
- Ekaterina Spiridonova, Member of the Public Council, Rosnedra
- Vladimir Vasiliev, Executive Director, The Northern Forum

Climate change is currently one of the main issues on the international negotiating agenda; it is closely interrelated with economics and politics. Whereas if earlier the UN Framework Convention on Climate Change and the World Meteorological Organization were the main platforms focusing on this topic, now climate change issues are increasingly discussed within the framework of international economic processes, including the World Trade Organization, International Monetary Fund and International Labor Organization. The carbon market, launched on the basis of the Kyoto Protocol practices and aimed at reducing greenhouse gas emissions, is actively developing and needs harmonization of international approaches for the functioning and transparency of the turnover of carbon units. Discussions have long been ongoing about the advisability of adopting a single approach (agreement) to "carbon prices". However, in the modern world it is extremely difficult to do this without international trade, and the question arises of how carbon regulation introduced by individual countries can affect the international trade chain, stability and trust in international trade.



Energy transition is one of the key factors in reducing the anthropogenic impact on the climate system. Significant investments and redistribution of financial flows are needed for its effective implementation on a global scale.

The session participants were cautious in their assessments of achieving the goals of sufficient funding; there are significant difficulties in achieving them, which may not be completely resolved in Baku, and difficult negotiations will continue in Belem. In fact, this is what has happened: at COP29, an annual allocation of \$300 billion to the developing countries was approved, which, according to their assessment, is extremely insufficient.

The Northern Forum, as an international organization of northern regions, is interested in strengthening the voice of the regions on the global COP platform and will do everything possible to ensure that the Arctic Pavilion becomes a permanent COP platform and organize the participation of heads of regions who should share their experience in minimizing the effects of climate change with the whole world. The 30th COP will take place in 2025, as well as 10 years of the approval of 17 sustainable development goals in Rio. Therefore, it is important to discuss the progress in SDGs achieving in Belem.

24. Renewable energy gains momentum for sustainable development of local communities

Moderator: Cataleya Bruce/Xinyue Han, Secretary of International Partnerships and Policy Advocacy (IPPA) for BRICS YEA, Advisory Board Member of Universal Versatile Society (UV Society), Regional Focal Point of SDG7 Youth Constituency for Oceania, Australia

Speakers:

- Rohit Kumar, Secretary General at the Carbon Markets Association of India (CMAI)
- Sherif Elrefaey, International Relations Manager at Ecocode
- Vikrant Srivastava, FAO Youth Policy Board Member, Co-Founder of Lead4Earth, India
- Arsenii Kirgizov-Barski, Assistant Chairman of BRICS YEA
- Ayushi Gaur, CMAI
- Dr. Sawsan Elawady, Environmental Expert, Engagement Manager of Ecocode, Egypt
- Jin Tanaka, Regional Focal Point of SDG7 Youth Constituency, IEEE YP CSTF, Co-Researcher of National Institute for Environmental Studies (NIES), Japan
- Fahad Haider, Renewable Energy (RE) Engineer/Consultant, Founder of Eminate, World Bank Climate Ambassador of Australia (COP28)
- Rinret Best, Capacity-building Team Lead of SDG7 Youth Constituency



The participants considered all the benefits from using alternative energy sources, which are primarily useful for energy supply to the small forms of local communities, although they are also beginning to be used in large volumes in large cities and by companies, which brings the goal of achieving carbon neutrality closer. The focus was on renewable energy sources as a key source of mitigating the effects of climate change.

In his keynote presentation, Rohit Kumar introduced the activities of the Carbon Market Association of India (CMAI), which unites various companies and organizations, noting the importance of carbon finance for the implementation of local projects, carbon credit and carbon offsetting to achieve NDC goals.

CMAI helps register projects in various standards. The UN Carbon Market and the EU voluntary carbon market are merging, which will help developing countries get funding. The Asian Development Bank has committed \$3.5 billion to finance renewable energy projects, which the speaker believes will contribute to decarbonization and electrification. For example, projects in India such as a renewable cooking project. Renewable energy will help achieve net zero by 2050.



It was noted that the transition to renewable energy sources is a trend in the BRICS countries, they provide electricity to remote communities and are necessary for reducing emissions and green development. Renewable energy projects can support local and indigenous communities, create new industries and jobs in local communities. At the same time, the participants also noted the negative aspects of using renewable energy sources. Companies install solar panels in forests, which leads to landslides, floods and drought. In the Asia-Pacific region, 3% of forests are cut down to build solar panels. It is necessary to reach agreements with the local residents and create environmental protection enterprises.

https://www.linkedin.com/posts/activity-7263847523323174912-LzLF?utm_source=share&utm_medium=member_desktop

https://www.linkedin.com/posts/activity-7261957854910140416-DE6-?utm_source=share&utm_medium=member_desktop

https://www.linkedin.com/posts/carbon-markets-association-of-india arctic-pavilion-activity-7264265241172029440-7pTH?utm_source=share&utm_medium=member_desktop

25. Youth for Clean Energy and Green Technologies: Quiz!

Moderator: Elizaveta Derevenets, Clean Energy Ambassador

The moderator introduced the topic and objectives of the event and noted the importance of scientific and technological solutions in achieving carbon neutrality.



This was followed by a short panel discussion “Digital Solutions for a Sustainable Future”, which included presentations on low-carbon energy sources, technological innovations for adaptation, the role of science, digitalization and youth in addressing climate change.

Speakers:

- Zongxu Xie, PhD Candidate, Water Resources Management and Global Governance, Tsinghua University and Oxford University, People’s Republic of China
- Ekaterina Khrykina, Clean Energy Ambassador

The quiz was held as Mix energy test lab.

Format: Interactive quiz through Kahoot polls app

Description: Lab stations on the most carbon-low clean energy sources: solar, hydro, nuclear, wind. Using Kahoot. Question format: multiple choice, true or false, photo quiz, etc. Individual participants get tokens from each station for correct answers. At the end, the most active get prizes.

Sample questions:

- What percentage of global CO2 emissions is related to the digital economy?
- Which technologies are key to replacing fossil fuels?
- Which digital solutions are helping to improve agricultural sustainability?

In conclusion, the moderator asked the participants to share their impressions and conclusions from the panel discussion and the game.

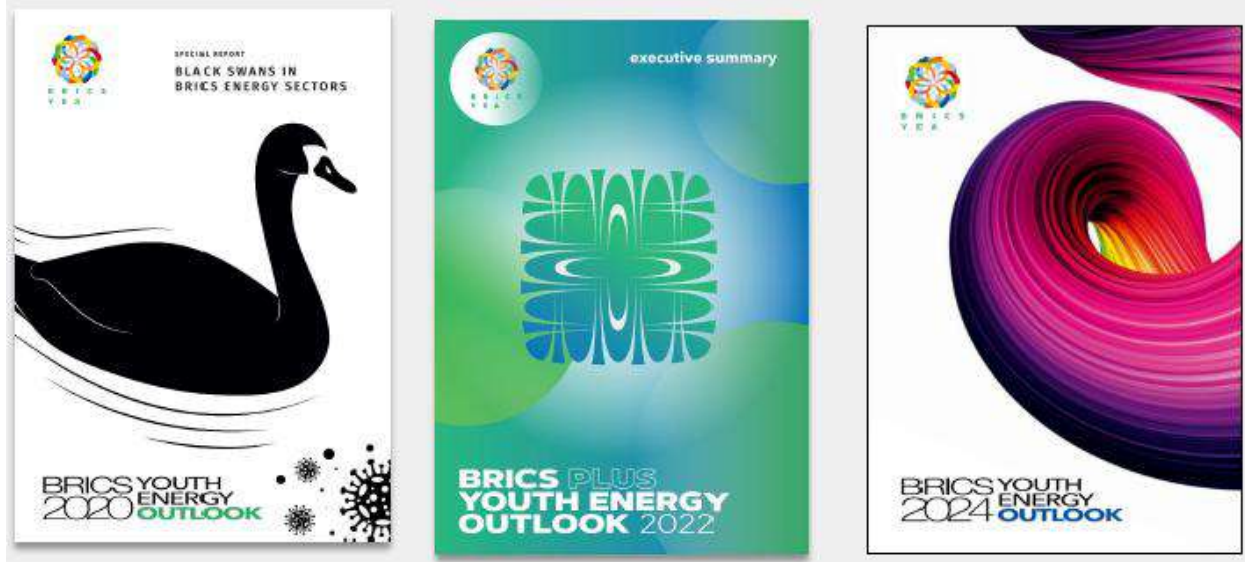
26. BRICS Youth Energy Outlook 2025: Youth-Driven Research for a Just Energy Transition

Moderator: Arsenii Kirgizov-Barskii, Assistant to Chair, BRICS Youth Energy Agency

Speakers:

- Yomna El-Awamri, Chief Expert of the BRICS YEA Young Expert Group on Business in Energy, Arab Republic of Egypt
- Cataleya Han, Secretary of the BRICS YEA Young Expert Group on International Partnerships and Policy Advocacy, People’s Republic of China
- Georges Habib, Member of the BRICS YEA Young Expert Group on Climate Change, Kingdom of Saudi Arabia

- Matthaues Menezes Assef, Member of the BRICS YEA Young Expert Group on International Partnerships and Policy Advocacy, Federal Republic of Brazil
- Akankshka Warade, Delegate of the VI BRICS Youth Energy Summit, Republic of India



BRICS Youth Energy Agency brings together young experts on various aspects of energy. Through BRICS YEA Young Expert Groups, it formulates hypotheses, conducts consultations and develops policies jointly with young experts from its network in nine BRICS countries and the Global South. In June 2024, the first group of BRICS YEA Young Expert Group members completed their work on the Outlook, and this session was the first public presentation of its key findings. YEA members are young experts representing universities, businesses, academic and research centers, and governments. BRICS Youth Energy Agency has been publishing an annual energy outlook for 6 years based on the projects by young researchers. The sixth edition was special, with 8 Young Expert Groups created in different areas: just and sustainable energy transition, resource management, sustainable agri-food systems, climate change, brain power and skills, international partnerships and policy advocacy, nuclear energy and technology, business and energy. Each group consists of 10 people from BRICS countries and the Global South.

The 2024 Outlook was presented at the BRICS Youth Energy Summit in Moscow in September.

BRICS YEA experts noted the need for more space for start-ups in energy and climate technologies, the importance of investments and resources for small and medium-sized enterprises in this sector.

In addition, interaction with such countries as the UAE and Saudi Arabia is necessary.

BRICS expansion requires new countries to join this initiative and, possibly, the creation of a new BRICS currency. At the same time, the participants of the session understand the impact of the US elections on international cooperation and the need to build trust and mobilize funds.

The 2024 Outlook emphasizes the role of youth organizations and their involvement in global initiatives, analyzes the countries' priorities and efforts to mitigate the effects of climate change, and highlights the specific traits of the BRICS founding countries.

- Brazil specializes in bioenergy and bioethanol.
- China has been successful in electric vehicles.
- India excels in solar and wind energy.
- Russia leads in nuclear energy.
- South Africa is moving from a coal economy to renewables.

The session participants noted that young people can participate in negotiations and offer new ideas and suggested holding a Youth Energy Summit or Forum, which could become a platform for promoting a vision for the future of energy and climate.

https://www.linkedin.com/posts/akanksha2001_cop29-bricsyouthenergyagency-cleanenergy-activity-7263466469827485696-HURc?utm_source=share&utm_medium=member_desktop

NOVEMBER 18, SATURDAY

27. *Revitalizing international cooperation in the Arctic*

Moderator: Vladimir Vasilev, Executive Director, Northern Forum

Speakers:

- Paul Fuhs, NF Goodwill Ambassador, Alaska, USA
- Terry Callaghan, Professor of Biology, University of Sheffield, Great Britain
- Ramon Pichs Madruga, Vice-Chair, IPCC, Cuba





The panelists discussed thoroughly the state of international cooperation in the Arctic, interactions between Western countries and Russia, the importance of involving experts from different countries and organizations, and using platforms such as the Northern Forum and the Arctic Council for cooperation.

The role of Russia in the Arctic was noted, as well as the importance of taking into account Russian research stations for accurate climate change models, the sanctions had a negative impact on cooperation and significantly slowed down scientific progress. The speakers supported the need to lift sanctions and resume work in the Arctic Council.

The IPCC assesses the near-term risks of biodiversity loss as high to very high in the Arctic and terrestrial ecosystems and emphasizes the need to strengthen enabling conditions and remove barriers to adaptation and mitigation. At the same time, cooperation should be inclusive and take into account the rights of indigenous peoples.

The IPCC is open to the participation of all experts and organizations through various channels, there is an opportunity to be selected as authors. The Northern Forum can recommend experts for the IPCC activities. The Arctic is a leader in using the renewable energy sources, and their active implementation has to be supported, but the Arctic should not be discriminated against in oil and gas production.

Young people and children can become the basis for raising new generations and cooperation. It is important to create resources and programs for educating children around the world. Paul Fuhs presented the Arctic Journey to Sustainable Development project, which aims to develop a curriculum for secondary schools. The IPCC also attaches special importance to youth education and the contribution of young experts, and has a Scholarship Program for students from developing countries.

Terry Callaghan noted the role of the International Organization of Polar Educators, which offers resources and materials for training. It was suggested to include the topic of education in the Arctic and climate change in the agenda. BRICS University is interested in developing this area. BRICS plans to create its own scientific platform.

The speakers also discussed energy transition issues. The world needs an energy transition to sustainable energy with less fossil fuel content; it has to be fair, equitable and inclusive, meeting the needs of developing countries. It is necessary to take into account the demand and changing lifestyles. The transition from fossil fuels to renewable energy sources requires significant financial investments. Long-term investments must be a priority for leaders.

28. Preparation and holding of the International Polar Year 2032-33

Moderator: Anton Vasiliev, Ambassador Extraordinary and Plenipotentiary of the Russian Federation, NF Goodwill Ambassador



Speakers:

- Alexander Shestakov, Lead Researcher, Marine Research Center, Lomonosov Moscow State University, NF Goodwill Ambassador
- Yuri Sychev, Deputy Director of Arktikugol Group
- Alexei Gunya, Lead Researcher, Institute of Geography SB RAS
- Andrey Bryksenkov, Plenipotentiary Representative of Rector, Russian State Hydrometeorological University

The session provided extensive information about the International Polar Year, its goals and objectives, as well as a historical discourse on the previous polar years.

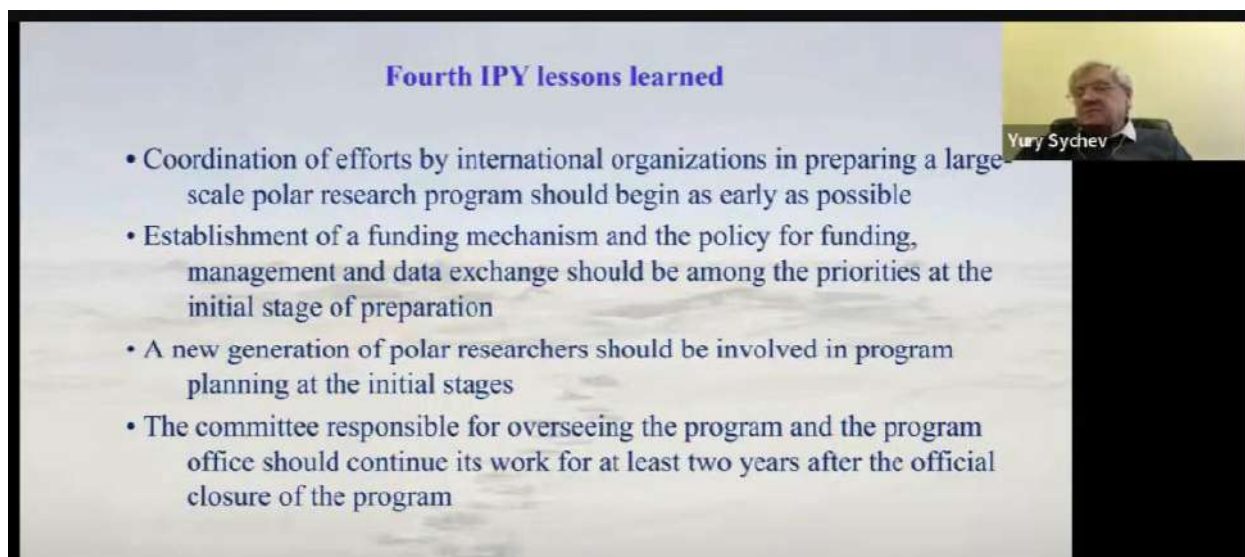
The issues of interaction in studying the regions of the "Third Pole" were considered in sufficient detail, taking into account the enormous role of mountains and glaciers in providing drinking water and, at the same time, the risks associated with avalanches, landslides, and floods caused by the melting glaciers.

But the Arctic holds a special place in the IPY program, since the planet's weather kitchen is formed here and the most developed countries are located here, and, accordingly, anthropogenic pressure is increasing. Climate change and rising temperatures lead to the melting of ice cover and glaciers, rising sea levels, migration of more southern species towards the Arctic and more active economic development of the region, primarily the development of the Northern Sea Route.

The speakers voiced a number of proposals for preparing events and research programs for the IPY, based on specific examples.

The working groups of the Arctic Council are changing their programs. For example, CAFF has adopted a 10-year program for biodiversity conservation that fits well with the IPY program. The experience of researchers working in polar regions from the Global South, such as Brazil, should be taken into account.

It was suggested to take into account the lessons of the 4th International Polar Year, paying special attention to the earliest possible start of programs' preparation, development of financial mechanisms for project support, mechanisms for data management and exchange in the complicated international environment, and the involvement of young researchers.



It was also suggested that the IPY Program Committee continue its work for at least 2 years after the completion of the IPY research program. Involvement of young people is especially important to ensure the continuity of generations and the training of highly qualified researchers for many decades to come. Involvement of indigenous peoples and use of traditional knowledge and observations of indigenous peoples to obtain a complete picture of the changes taking place is of great importance.

29. Seven Wonders of the Arctic

Speakers:

- Vereschak Yulia, Director of International programs of the Protected Areas Embassy Foundation, Commission on Education and Communication (CEC) member
- Leshina Evgenia, Expert on interactive methods in environmental education and interpretation Centre Zapovedniks, Commission on Education and Communication (CEC) member

The experts from the Protected Areas Embassy Foundation presented an interesting project revealing the wonders of the Arctic, that can attract researchers, tourists and those willing to live and work in the Arctic to the region.



The Arctic does not belong to any country, but eight countries have territories there. And this lesson can be useful for all Arctic countries.

7 Wonders of the Arctic:

- Northern Lights
- Rare animal species, diversity of flowers, sea wonders
- People and their life
- Historical memory of the Arctic
- Arctic cleanup project

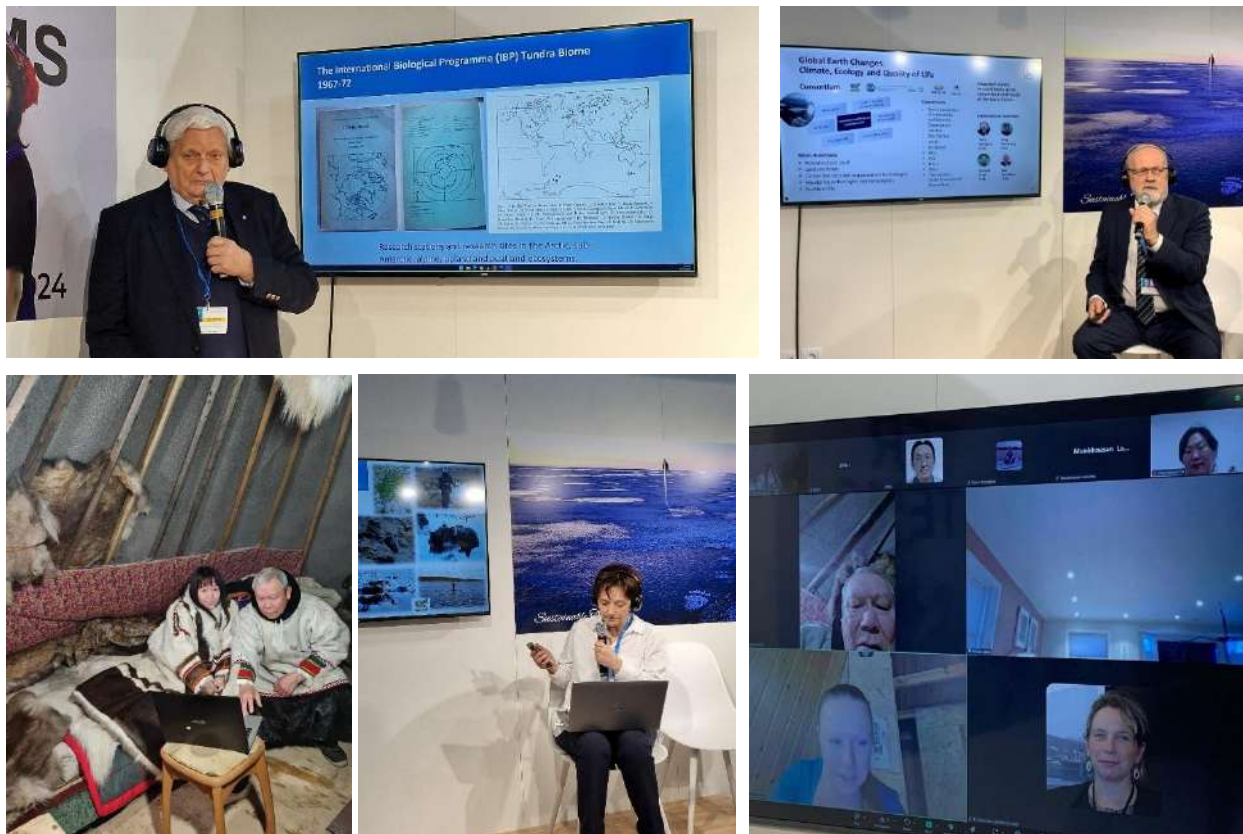
- Arctic vulnerability and climate change
- Protected areas and their importance

The speakers worked with the audience, suggesting to continue the list of the Arctic wonders. This project is of significant interest to comprehensive schools and travel companies.

30. OUR Arctic networking: Observing, Understanding, Responding

Speakers:

- Professor Terry V Callaghan, CMG, Dr., Professor at Sheffield Uni., UK, Founder, scientific director and President of NPA "International Network for Terrestrial Research and Monitoring in the Arctic"
- Viktor Dyomin, First Vice-Rector, Tomsk State University
- Olga Shaduiiko, Director, International Cooperation Center
- Andrey Romanov, Doctor of science (techniques) , professor, head of the laboratory, Institute for Water and Environmental problems, SB RAS, Barnaul
- Dmitry Troshkin, PhD (physics and math) , senior researcher, academic secretary, Institute for Water and Environmental problems, SB RAS, Barnaul
- Sergey Kirpotin, Doctor of science (biology), professor, head of the laboratory, Tomsk State University, Tomsk
- Lidia Rakhmanova, PhD, researcher, High School of Economics in Saint Petersburg, Saint Petersburg
- Mikhail Okotetto, reindeer herder, head of the Union of the communities of Indigenous Peoples of the North (Yamalo-Nenets Autonomous Okrug), Salekhard
- Alexandra Lavrillier, Deputy Director for the Arctic - Université de Versailles Saint Quentin en Yvelines, Paris, France
- Otgonbayar Demberel, PhD, head of the Laboratory, Western Regional Branch, National University of Mongolia, Khovd (visiting researcher at OJERY Institute, Korea University, Seoul, South Korea)
- Munkhnasan Lamchin, Research professor, OJERY Institute of Korea University, Seoul, South Korea
- Hedding David, Senior researcher, University of South Africa, SAR
- Ndivhuho Tshikovhi, Durban University of Technology, SAR
- Luo Ying, Guangdong University of Foreign Studies South China Business College, Polar Issues Research Centre, China
- Rajendra Kumar Isaac, professor, Sam Higginbottom University of Agriculture Technology, India
- Aiding Kornejady, Golestan Agricultural and Natural Resources Research and Education Center, AREEO, Iran
- Ana Flávia Barros-Plataiu, University of Brasília, Institute of International Relations
- Diana Bryazgina, anthropologist
- Olga Lukashenko, PhD (economics), Ass.prof., Novosibirsk State University of Economics and Management, Novosibirsk
- Roosa Rythkoenen, PhD student Manchester University, UK



This event was organized by the Siberian Network on Environmental Change SecNet, the non-profit association INTERACT and "Global Earth Changes: Climate, Ecology, Quality of Life" Consortium. The networks have extensive experience working in the Arctic and adjacent territories, observing and monitoring changes. Changes affect the people of the Arctic and the world population through feedbacks from climate and changes in biodiversity, which in turn affect food, fuel, fiber and pharmaceuticals. The intensity of observation is low, despite remote sensing. Although remote sensing can detect change, ground testing and understanding of the causes of changes are needed. All participants - researchers, decision makers, local and indigenous people – have to work together to Observe, Understand and Respond to multiple and interacting problems.

Each speaker confirmed the main idea of the session: cooperation and mutual understanding between all groups of society is one of the main components of successful scientific research. The event was attended by scientists from Great Britain, Russia, France, China, Mongolia, representatives of indigenous peoples of Russia and Norway. Mikhail Okotetto from Yamal got in touch directly from the tent.

31. Science and Education for Sustainable Development

Moderator: **Sergey Rybakov**, Program Director, Vostok Discussions Club; General Director, Nature and People Foundation

Speakers:

- Olga Konovalova, Head of Biodiversity Department, Moscow State University Marine Research Center
- Ramon Pichs-Madruga, Vice-Chair, Intergovernmental Panel on Climate Change (IPCC)

- Tatiana Sokolova, PhD, Associate Professor, Higher School of Economics, School of Communications, Director of the Autonomous Nonprofit and Educational Center Higher School of Communications
- Vladimir Uskov, Head of the Climate and Environmental Issues for Sustainable Development Division, Department of International Organizations, Ministry for Foreign Affairs of the Russian Federation.
- Vladimir Moshkalo, Head of the UN Environment Programme Russia Office (video address)
- Vasily Savvinov, Vice-Rector for Strategic Development, Ammosov North-Eastern Federal University
- Sergey Roginko, Head of the Center for Ecology and Development – Leading Researcher of the Economic Research Department, Institute of Europe of the Russian Academy of Sciences
- Stanislav Zhukov, Corresponding Member, Dr. of Science (Economics), Deputy Director for Scientific Work, the Institute of World Economy and International Relations

Science, technology and innovation are key elements of sustainable development and international cooperation. The IPCC has issued three special reports: global warming of 1.5 degrees, climate and earth change, and ocean and climate change. The IPCC 7th Assessment Report is being prepared, a review meeting to prepare the input of the three working groups will be held in Kuala Lumpur, and the structure and content of the report will be approved in February next year.



It is important that climate change becomes the first global policy agenda determined by science. Social sciences can also be useful in developing climate policy instruments. Policy should be based on science, not vice versa. Science should become important and interesting for people, especially for young people.

In Russia, there is a program called “Floating University”, which is aimed at involving students and young scientists in research activities in marine sciences. 62 organizations are participating in the program.

At the Higher School of Economics, students work on special business-related projects and develop communication strategies, which allows them to engage in solving real business problems.

It is noted that science and technology contribute to social and economic development. At the same time, it is necessary to assess what side effects are brought by introducing technologies.

32. *Youth and Sustainable Development*

Moderator: Sergey Rybakov, Program Director, Vostok Discussions Club; General Director, Nature and People Foundation

Speakers:

- Naphtali Akudung, Founder and CEO, Climrenew, IBTK Foundation Youth Delegate
- Rahul Chahal, Youth Delegate, Global Youth Federation, India
- Darina Elizarova, Leading specialist of the Center for International Partnerships of ANO Corporate Academy of Rosatom
- Tatiana Sokolova, PhD, Associate Professor, Higher School of Economics, School of Communications, Director of the Autonomous Nonprofit and Educational Center Higher School of Communications
- Stephan Shishigin, Clean Energy Ambassador, Economist of the Central Bank of the Russian Federation
- Roman Chukov, Program Expert, United Nations Department of Economic and Social Affairs
- Pavel Seleznev, Dean of the Faculty of International Economic Relations, Financial University under the Government of the Russian Federation (Financial University)



The session participants discussed thoroughly the issues of youth engagement in the global programs and movements on sustainable development and climate change. Research shows that people are willing to talk about sustainable development, but not about measures to combat climate change.

Young people should be involved in global climate negotiations, young negotiators can be more dynamic and straightforward, and their participation can improve the outcome of the negotiations and raise awareness of the civil society and media. Young people from Western countries are often invited to negotiations, but they do not always understand the problems of the Global South, whereas youth from the Global South is not so actively involved in the negotiation process. Therefore, attention should be paid to training young negotiators.

Participation in international conferences such as COP is important for young people. It helps them understand themselves and their interests, as well as practice their skills.



Three pillars of transformation: technology, finance and education. In different countries, various associations and projects are being created to prepare young people to manage technology, finance, and pay attention to getting proper education. The importance of peaceful coexistence and international cooperation is emphasized, and young people should be taught these principles.

The need to motivate young people to study fundamental science, especially biology and chemistry, was emphasized in terms of the climate agenda and energy transition. It is important to discuss with young people their educational and financial needs.

Increasing youth participation in UN climate conferences allows them to raise awareness, engage in the negotiation process, and share their vision of solutions with the world.

NOVEMBER 19, TUESDAY

33. Adaptation strategies to address climate change and mitigation approaches for reducing biodiversity loss in the ocean

Moderator: Hajar Kouryani, Member, Control Board, International Forestry Students Association, Marocco

Speakers:

- Hemavathi S. Shekhar, Founder and CEO, Enact Earth Foundation, India
- Mark Haver, CEO, BlueGreen Generation, USA
- Jung Woo Na, International Forestry Students Association, South Korea
- Petronella Chingina, Master's student, Pan African University Institute of Water and Energy Sciences (including Climate Change), Zambia



Countries around the world are developing strategies to adapt to and mitigate the effects of climate change, which are not always successful and do not bring the desired results. The session participants considered the impact of climate change on the oceans and their role in maintaining a sustainable climate, the problems of ocean pollution and their impact on biodiversity.

At COP26, the Global Blue New Deal was created to unite youth and politicians in the fight against climate change in the ocean, which actively participates in the UN conferences on the oceans, held every three years. At the same time, it is believed that coordination of actions within the UNFCCC on climate change in the ocean is insufficient. Oceans and coastal forests, mangroves play an important role in adapting to climate change. They reduce the risk of natural disasters and help reduce carbon emissions.

In Indonesia and the Philippines, mangrove forests are successfully restored under the leadership of local communities. Satellite data and unmanned aerial vehicles are used to monitor and restore mangroves. Youth organizations can have a significant impact on the protection of marine species, they bring fresh perspectives and energy to the protection of the marine environment and can participate in the restoration of wetlands and tree planting. It is necessary to build youth capacity and train local communities in proper waste and biodegradable materials management. Speakers pointed out the need to include courses on marine biodiversity in the school curriculum.

https://www.linkedin.com/posts/petronella-chingina-46279519a_youthleadership-marineconservation-cop29-activity-7267476427430678528-FQQ3?utm_source=share&utm_medium=member_desktop

34. Role of financial intermediaries for sustainable development

Moderator: Sergey Rybakov, Program Director, Vostok Discussions Club; General Director, Nature and People Foundation

Speakers:

- Pavel Seleznev, Dean, Faculty of International Economic Relations, Financial University under the Government of the Russian Federation
- Sergey Storchak, Senior Banker, VEB.RF
- Alexander Shestakov, Lead Researcher, Marine Research Center, Lomonosov Moscow State University; Leading Expert of the Russian Delegation at CBD COP-16
- Alexei Kokorin, Expert on climate issues, Nature and People Foundation, participant of the UNFCCC talks since 1993
- Ekaterina Spiridonova, Member of the Public Council, Rosnedra
- Yvette Zenina, Natural Resources Officer, Subregional office of FAO for Central Asia



The participants of the session noted the importance and role of financial intermediaries in solving global problems related to climate projects and sustainable development. The World Food and Agriculture Organization promotes the Harmony Initiative aimed at increasing climate financing, as well as projects to integrate climate financing into national documents.

The participants also discussed possible results of the conference and adoption of the financial goal of the Paris Agreement, noting the problems with identifying the total amount of financing and the requirements of developing countries.

For example, the Conference of the Parties on Biodiversity discussed the mobilization of financial resources. The goal is to collect 200 billion dollars a year from various sources. The main issue is the creation of a global biodiversity fund, but developed countries were against it and no decisions were made at the conference and the discussions will continue next year. The Global Environment Facility does not satisfy all countries. Russia is in favor of creating a new fund that will finance projects in different countries. At the same time, Russia does not support the creation of a fund to finance microplastics, pointing out that it is important to observe the principle of voluntary contributions to such funds.

Financial intermediaries play a key role in climate financing. There is no progress in the COP29 finance negotiations and without financial intermediaries it is impossible to reach a result that satisfies all parties.

Public finance cannot be the main source of climate finance due to the debt burden and budget deficits. Climate projects are implemented at the micro level but require a macro level approach. Financial intermediaries such as dealers, brokers and pension funds play an important role in the flow of money between markets, operating under certain rules and procedures.

Multilateral development banks, such as the World Bank, are increasing the share of climate projects in their portfolios. Developing economies are gaining access to global debt and equity markets. These instruments could provide flows of up to one trillion dollars in the next three to four years. The current international monetary and financial system cannot provide a multiple increase in the flow of money for climate projects. It is impossible to rebuild the system quickly, since most players are satisfied with the current situation. Therefore, it is necessary to create a global system of climate finance. It is necessary to develop a concept or vision of a global system of climate finance. It is important to create a team of like-minded people to achieve this goal.

The financial track will be key next year, since without it, it is impossible to solve climate problems.

35. Arctic Energy, Food, and the Future of the Human Race

A lecture by the Northern Forum Goodwill Ambassador Paul Fuhs, Alaska, USA, touched upon the relationship between food and energy in a historical context. Energy has played a central role in human society since the discovery of fire, being a key factor in food production. In the early centuries, slavery was common as an alternative to energy before the advent of fossil fuels. The development of energy made it possible to overcome slavery.



Population growth from 600 million to 8 billion in a short period of time leads to a sharp energy consumption in general. Currently, food production consumes 30% of the world's energy. At the same time, in the USA only 2% of people are employed in agriculture, in China - 70%.

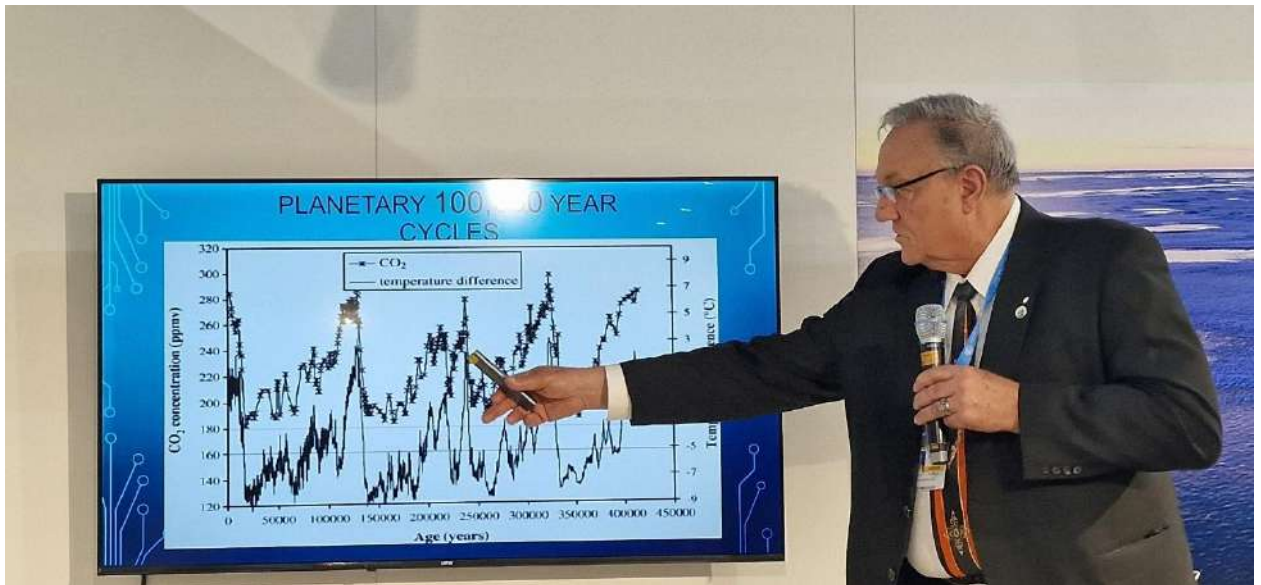
Population growth requires increased food production and, accordingly, energy demand to provide for the growing population is growing. It is necessary to draw up a global energy budget for the future.

In recent decades, alternative energy sources have been actively developing. The Arctic is leading in using renewable energy sources, the USA and the EU are lagging behind in this direction. Renewable energy sources may be a priority, but fossil fuels are also necessary. There is a manipulation of data on climate change and CO₂ emissions to introduce a moratorium on hydrocarbon production. Reduced demand for oil and gas will lead to their extraction in other places. The problem is in the 8 billion inhabitants burning fossil fuels.

There are climate cycles of transition to ice and hot periods every 100 thousand years, and scientists cannot clearly explain what causes these cycles. The Arctic was tropical in the past, which explains the presence of fossils that originated from tropical plants and animals. And now climate change is more pronounced in the Arctic, we are approaching another transition period. Warming can lead to a rise in sea levels, different scenarios are discussed, the use of geoengineering to maintain sea levels, which causes controversy.

The development of alternative energy sources is important, but people do not think about the processes needed to produce energy. For example, nuclear energy is environmentally friendly, but there are problems with the remaining fuel. You can pay attention to algae, which

can be a source of energy and food. Growing algae requires a lot of CO₂, but they can be a good source of energy. They are easy to grow, and they are a good product.



Thus, energy transition issues require an integrated approach taking into account all factors, including climate cycles. It is necessary to support research into cycles and their deviations in order to develop effective adaptive measures.

<https://mustreadalaska.com/paul-fuhs-report-from-united-nations-climate-change-conference-in-azerbaijan/>

36. Panel Discussion on Bridging Communication Gaps in Arctic Collaboration & Research

Moderators: Viktoria Khokhlova, APECS COP29 Delegation Chair, Spatial Planning and Research

Fabian Seemann, PhD student at AWI Helmholtz Centre for Polar and Marine Research, Department of Permafrost Research, Germany

Panelists:

- Martin J. Siegert, Glaciologist, Deputy Vice Chancellor (Cornwall) at the University of Exeter
- Dr. Susana Hancock, Global Mountains Director at International Cryosphere Climate Initiative
- Simone Weichenrieder, APECS COP29 Delegation Co-Chair, Climate Finance & Policy
- Alexandra Zuhr, APECS Germany Board Chair, Geophysics and Environmental Sciences
- Louise Mercer, PhD student at Northumbria University: community-based monitoring of environmental change in the Canadian Arctic



APECS is an international organization working for over 20 years; it has national committees in over 30 countries, representing polar science and polar regions in such international committees as IASC and SCARP. APECS plays an important role in international committees, especially in the Arctic and Antarctic. The organization raises awareness of the needs of early explorers and indigenous peoples, holds sessions at COP to represent the polar regions and raise scientific awareness.

Panelists paid special attention to the issues of conducting research in Antarctica, as this region is also experiencing significant climate change, while research is associated with huge material costs and requires an interdisciplinary approach, combining the efforts of many countries. There is a lack of knowledge, for example, about the subglacial topography of Antarctica.

It is necessary to ensure the continuity of generations; there are good examples of successful cooperation between young researchers and outstanding scientists. The transfer of experience and knowledge from experienced specialists is important for young scientists.

The development of educational programs not only to inform the general public, but also to educate new generations of polar researchers is very important. Visiting schools helps future generations understand the importance of the polar regions. It is important to show young people ways to achieve success and hope for the future, to show children the beauty and vulnerability of the polar regions, to demonstrate hope and opportunities for participation in research and policy. Early identification and support of talent are important for long-term success, taking into account the cultural and social characteristics of communities.

The best way to attract young people to science is to visit schools and counsel children. There are programs in the UK to get children interested in science from an early age. It is important that children understand that science is accessible to all and that being a scientist is an honor. The personal experiences of the panelists show that passion for science can be developed from an early age. Educators need to support children's interest in science and maintain their passion. APECS helps scientists conduct research in the Arctic, participates in the assessment of grant applications and helps prepare publications about the Arctic fieldwork.

https://www.linkedin.com/posts/viktoria-khokhlova-0833a5159_apecs-climateaction-earlycareerscientists-activity-7263239982872457217-82qi?utm_source=share&utm_medium=member_desktop



37. Heritage of Rio de Janeiro: from biodiversity to desertification

Moderator: Sergey Rybakov, Program Director, Vostok Discussions Club; General Director, Nature and People Foundation

Speakers:

- Viktoria Elias, Director, Conservation Programs, Nature and People Foundation
- Alexey Golubev, CEO Counselor, Rusatom Smart Utilities, Rosatom State Corporation, doctor of science in physics and mathematics
- Oleg Kobayakov, Director, Office for Relations with the Russian Federation, Food and Agriculture Organization of the United Nations (FAO)

- Alexander Shestakov, Lead Researcher, Marine Research Center, Lomonosov Moscow State University; Leading Expert of the Russian Delegation at CBD COP-16



The session participants discussed climate change and its impact on the global community. Three conferences are being held this year: on biodiversity, climate change and desertification, whose main objectives are to resolve financial issues, first of all, and develop new financing mechanisms. Negotiations in this area are difficult, the COP on biodiversity failed to reach consensus and the discussions will continue in 2025. The need to coordinate actions under the three conventions to preserve biological diversity and prevent land degradation was noted.

38. Global Climate Action Summit: Empowering Youth, Promoting Equality, and Driving Innovation

Speakers:

- Zhang Jian, Vice President of the Institute of Climate Change and Sustainable Development at Tsinghua University
- Amr Hamouda, Vice chair of IOC-UNESCO and the President of the Marine Hazards Mitigation Center - Egypt Department, NIOF, Alexandria, Egypt
- Liu Zihao, Society for Science Alumni, Youth Director, Youth Delegate, COP29
- Liang Jiawei, Youth Delegate
- Xu Tong, Fellow of the University of Cambridge; Co-founder, Good to Nature
- Suzan M. El-Gharabawy, National Institute of Oceanography and Fisheries (NIOF), Egypt; 10C-Africa Vice Chair; Expert, GOOS Steering Committee (Group V)
- Arvea Marieni, BClimate Pact Ambassador for the European Commission, Innovation Expert at UN Global Climate Change Innovation Hub, Strategic Advisor on EU-China Environmental Cooperation, and Board Director in Ecological Transition Solutions
- Elise Breyton Buckle, President and CEO, Climate Bridges; Former Executive Member, Municipal Government of Nyon, Switzerland; Senior Advisor on Climate and Nature-based Solutions, United Nations
- Maryam Majidova, International Trainer and Facilitator, Gender & Youth Consultant, Founder of Gender Hub Azerbaijan
- Paul Jenkinson, President, European Young Engineers

- Arvea Marieni, BClimate Pact Ambassador for the European Commission, Innovation Expert at UN Global Climate Change Innovation Hub, Strategic Advisor on EU-China Environmental Cooperation, and Board Director in Ecological Transition Solutions
- Lincoln Teo, Chief Executive Officer, ZERO13 | Strategic Advisor, iWise - Expert in AI-Blockchain Integration Carbon Markets and Data Exchange Innovation

Vice President of the Institute of Climate Change and Sustainable Development of Tsinghua University introduced the Institute's activities in the field of economic policy and decarbonization, participation in the global climate agenda. Amr Hamouda emphasized fruitful cooperation between the UNESCO Intergovernmental Oceanographic Commission and China, the importance of supporting youth and innovation to solve climate problems. Arvia Marieni spoke about the work of the European Commission.



The panelists discussed various aspects of using technology to combat the effects of climate change, emphasizing the need for interdisciplinary cooperation, combining technology with traditional wisdom, and connecting policy and practice to achieve sustainable development.

The difference in education systems is of some importance. Eastern education focuses on fundamental knowledge, while Western education focuses on practical research. The speakers believe that governments should invest in climate education. Schools should organize climate events and report on budgets. Climate education should become part of society.

Most speakers support transition to a green economy and abandonment of fossil fuels.

The UNESCO Intergovernmental Oceanographic Commission has developed a strategy for the Decade of the Ocean from 2021 to 2030, and a roadmap for the region has been launched in Africa. The African Ocean 2022 Conference became an important event for the implementation of the Decade of the Ocean. Nine priorities include sustainable ocean management, human health, fisheries, and carbon potential. Particular attention is paid to early warning systems and digital twins, organizing camps for students from all over the world, training on research vessels and data processing.

<https://apnews.com/press-release/kisspr/climate-change-china-climate-science-2f402a88ad867aea66e9cc6bddf7421c>

NOVEMBER 20, WEDNESDAY

39. Environmental safety of the Northern Sea Route

Moderator: Alexander Shestakov, Chief Expert, Marine Research Center, Lomonosov Moscow State University, NF Goodwill Ambassador

Speakers:

- Paul Fuhs, President, Marine Exchange of Alaska, USA
- Dr. Bijoy Nandan, School of Marine Sciences, Cochin University of Science & Technology (CUSAT), India
- Halldor Johannsson, Director, Arctic Portal
- Alexey Skorina, Marine Research Center of Moscow State University, Russia
- Elena Gershelis, Sirius University, Russia





The session discussed the Northern Sea Route as a global transport route and environmental safety in the context of climate change. The definition of the Northern Sea Route in Russian legislation was considered. There are two route options: the large Northern Sea Route and the short route between Novaya Zemlya and the Bering Strait.

Such topics as digital services, remote sensing, shipping safety, scientific research and India's Arctic strategy were also considered. The importance of the ocean in the context of climate change and sustainable development was noted. A study of the global ocean observation system showed the possibility of building modern oceanography. This can change the situation in the Arctic, which is changing due to climate and environmental changes. The Arctic requires serious study and management of the ocean.

Rosatom pays significant attention to the environmental safety of operations on the Northern Sea Route. Environmental safety is impossible without knowing the status of the marine environment and biodiversity. Russia has a serious legal framework for ensuring environmentally friendly operations in the World Ocean. The federal law and the national strategy for the development of the Arctic include environmental aspects. The project to develop a comprehensive environmental monitoring system for the Northern Sea Route began in 2021. The system covers about 70% of the marine Arctic within the Russian territory and exclusive economic zone. Research is focused on abiotic components, hydrology, ice conditions and water pollution. The program includes 80 stations monitoring the state of biodiversity and the effects of shipping operations.

Based on monitoring studies, management tools are developed. Approaches to reducing the impact on marine mammals are discussed. Digital platforms for monitoring and management using remote sensing are being developed.

Sustainable shipping includes environmental, social and financial aspects. Participants noted the need to develop guidelines for sustainable shipping in the Arctic using best international practices and initiatives. In this regard, the Arctic Council and its working groups can play a key role. Despite difficult international environment, the Arctic Council is an important forum for cooperation and it is necessary to continue its work. The International Polar Year provides impetus, but projects often end without continuation. For example, the Global Terrestrial Permafrost Database Network was established in 2011, but funding ended in 2016. Therefore, long-term and accessible sources of funding are needed.

Geopolitical and economic benefits of sustainable shipping along the NSR:

- Reduced transit times and transport costs.
- Improved global trade links and economic growth.
- Development of ports, logistics, resource exploration and renewable energy.
- Stimulation of investment in clean energy and technology.
- Economic benefits and employment opportunities.

40. Climate Resilience and Energy Solutions: Bridging Arctic and African Perspectives

Moderator: Joselyn E. Mirashi, Vision for Sustainable Africa, Tanzania

Speakers:

- Melissa Pek, Strategy Director, Global Solar Council, Canada
- Liza, Climate Change and Risk Management Researcher, Tanzania

The session participants considered the development of the energy industry in Africa and the Arctic. Africa has excellent prospects for the development of solar energy, but only 1% of the territory is covered by this type of energy.

Overall, the solar industry employs 7 million people, but more skilled specialists are needed.

Zambia is experiencing a drought, which leads to rolling blackouts. The government is trying to increase electricity production, including the construction of a coal-fired power plant. Incentives for the development of solar energy and simplification of the financing process are needed.

Solar energy can play an important role in both the Arctic and Africa. Polar day in the Arctic optimizes the use of solar energy.

The speakers noted that solar energy is more flexible and scalable compared to wind energy. Autonomous solar installations and mini-solar power plants can provide energy to rural communities. It is important to work with local communities to successfully implement projects.



The session participants were unanimous in their opinion that technologies should be adapted to the needs of specific regions.

NOVEMBER 21, THURSDAY

41. Biodiversity research in the Russian marine Arctic

Moderator: Alexander Shestakov, Chief Expert, Marine Research Center, Lomonosov Moscow State University, NF Goodwill Ambassador

Speakers:

- Olga Konovalova, Marine Research Center of Moscow State University, Russia
- Irina Onufrenya, Nature and People
- Halldor Johannsson, Arctic Portal, Iceland
- Irina Fitzgerald, Norilsk Nickel LLC, Russia
- Svetlana Sheinfield, Kept, Russia



The session discussed biodiversity conservation in the global context, goals and objectives until 2050, the role of the Arctic Council, the new action plan for the conservation of Arctic biodiversity until 2035, and climate risks in the Russian Arctic. The Arctic is home to many endemic species and an important place for migratory species. Arctic ecosystems are important for maintaining biodiversity and regulating the climate. The Arctic is also home to indigenous peoples whose lives are linked to natural resources. It is important to take ecosystem services into account when assessing risks in the Arctic. Modern digital solutions and services can help in risk assessment. Risks must be monitored, and high risks require the development of action plans. It was noted that compensation in the Arctic is ineffective, whereas risk prevention and minimization are important.

The experience of the Center for Marine Research at Moscow State University, which is celebrating its tenth anniversary and is implementing the results of scientific research, was presented.



A comprehensive biodiversity monitoring program is being developed in Russia, with pilot monitoring studies conducted in 2021-2023. Books on Arctic marine biodiversity have been published. Trainings for tourist guides and professionals are being held.

The data show that planning activities, especially shipping and tourism, should take into account walrus hunting and other activities. Transportation should be carried out taking into account the characteristics of walrus populations.

Research shows that conflicts between polar bears and people are increasing due to climate change and the increasing number of people in the Arctic. Any interaction between a polar bear and a human, regardless of the consequences, is considered a conflict. A database of conflicts in the Russian Arctic is being created to mitigate the risks to polar bears and people. Most of the conflicts occur in Chukotka due to melting ice. In local settlements and at meteorological stations, people are trained and prepared to meet with polar bears. In the new groups of people, such as shift camps and reindeer herders, this is a new problem that requires training and preparation. Bear patrols in the Russian Arctic are the best way to avoid conflicts.

To ensure the conservation of biodiversity, data exchange between the Arctic countries is necessary, currently there is no exchange, but there is a desire for global data exchange, given their usefulness for the Arctic regions.

In Russia, there is a problem with different data owners. Projects are supported by different companies, which complicates the exchange of data. Therefore, it is necessary to create a common data system for biodiversity.

42. Renewable/Nuclear Energy in the Arctic: Pathways to Sustainable Development and Energy Security

Moderator: Shahrukh Nasim, Events and Activities Coordinator at Nuclear for Climate, and UWC Fellow at the American Nuclear Society

Speakers:

- Tiffany Adams, Nuclear Communications Lead at Idaho National Laboratory and Co-Lead for Nuclear for Climate
- Safa Abdo, Ph.D. Nuclear Physics, WiN Global YG Executive Secretary
- Dr. Frank Ling, Chief Scientist for Anthropocene Institute
- Matthias Muehlbauer, Founding Partner, OnePointFive and OnePointFive Academy

The participants of the discussion considered the features of introducing renewable energy sources and nuclear energy in the Arctic and noted three main problems in the implementation of solar energy projects: financial mechanisms, technologies and infrastructure. RES cause a mixed attitude in society and there are certain categories of stakeholders: traditional allies, non-traditional allies, neutrals and opponents. It is necessary to develop approaches to working with each category. At the same time, it is important to organize work to attract neutrals and opponents to cooperation. When working with the opponents of RES, it is advisable to acknowledge the existing tension and invite to an open dialogue to eliminate misconceptions.



There is a need to bring together stakeholders to implement renewable and nuclear energy. Micro nuclear reactors have been used in the Arctic since the 1960s and have clear advantages: smaller size, can be built in a factory, lower costs.

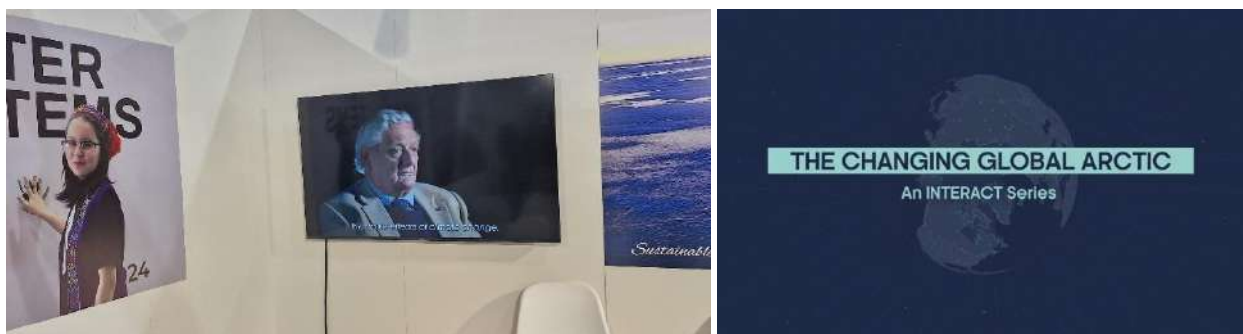
Regarding renewable energy, Iceland uses 100% renewable energy. There are problems with diesel generation in remote communities. A combination of geothermal, solar, wind and batteries is desirable.

There are problems with the rapid transition to new energy systems. Nuclear energy is seen as a complement to renewables in the Arctic.

At the same time, it is important to maintain a positive attitude towards traditional energy (oil, gas, coal). It is important not to denigrate the communities of miners, as they played a role in industrialization. Dialogue and understanding of the histories and cultures of different people are necessary to reach agreement.

43. The Changing Global Arctic. An INTERACT series.

Four short films co-created by INTERACT and BBC Natural History Unit, touch upon four different but crucial aspects of changes in the Arctic and their impact on the lives of the Arctic communities and the global ecosystem. The films are part of the trilogy, where the first part (Northwards) is aimed to involve, The Changing Global Arctic – to inform, and the third one (check for updates) — to provoke.



The series was presented by Terry Callaghan, Professor at the University of Sheffield, founder, scientific coordinator and president of the International Network for Terrestrial Research and Monitoring in the Arctic (INTERACT), joint Nobel Peace Prize winner with IPCC, Great Britain

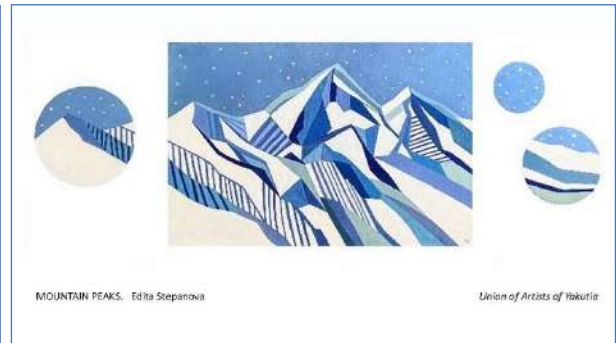
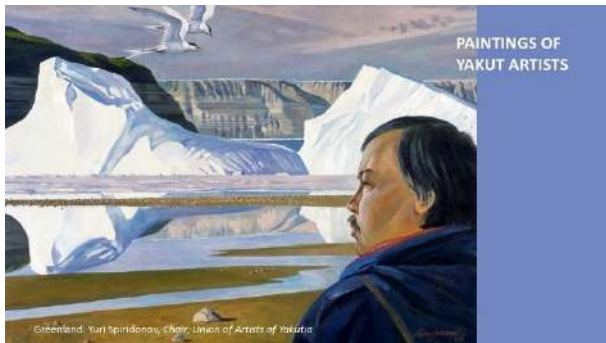
INTERACT Series “The Changing Global Arctic”:

- Arctic Climate Magnification - <https://www.youtube.com/watch?v=xCqofgFN7CA>
- Extreme Causes for Concern - <https://www.youtube.com/watch?v=Dfx1KLzRdso>
- Disappearing Homes - <https://www.youtube.com/watch?v=LZAoQTpmzcQ>
- The Costs of Arctic Tourism - <https://www.youtube.com/watch?v=py8jyQ-Kb0A>

44. Exhibition of paintings by Yakutia’s artists

Between the sessions, paintings by the artists from the Sakha Republic (Yakutia) were exhibited almost every day:

- Yuri Spriridonov, Chair of the Artists’ Union
- Galina Okoemova
- Sardana Ivanova
- Nikolai Kurilov
- Irina Mekumyanova – Pilska
- Natalia Davydova
- Ekaterina Shaposhnikova
- Edita Stepanova
- Alexandra Bochkareva-Innokentieva
- Antonina Shadrina
- Anna Zvereva
- Nadezhda Fedulova



45. Exhibition of paintings by the students of Yakutsk Kim Children’s Art School, Sakha Republic (Yakutia)

Also, “Ecology of the Arctic” exhibition of paintings by the students of the Children's Art School (teacher Edita Stepanova), dedicated to the Arctic and climate change, was arranged between the sessions.

The works of the following young painters were presented: Dyulustan Alekseev, Yuliana Argunova, Ilona Afanasyeva, Varya Barashkova, Elvira Bezhetskaya, Ulyana Vinokurova, Alesya Danilova, Eva Danilova, Olesya Dyachkovskaya, Dinara Ivanova, Sandaara Zakharova, Kirill Zekin, Yulia Kukhareva, Kolya Mestnikov, Milena Orestova, Danil Prisyazhny, Mila Popova, Angelina Protopopova, Sofia Semenova, Roxana Sunkhalyrova, Naryiana Tikhonova, Aelita Timofeeva, Amalia Shepeleva, Nastya Shestakova, Vilena Filippova.



PAINTINGS BY STUDENTS OF YAKUTSK ART SCHOOL
Teacher – Edita Stepanova



MEETINGS, NEGOTIATIONS, AGREEMENTS

The Arctic Pavilion was visited by many COP29 participants. A significant number of meetings, negotiations, discussions were held daily, and agreements were reached with various organizations on joint actions in the future.

Let us highlight some NF-related outcomes.

1. The Intergovernmental Panel on Climate Change (IPCC) invites the Northern Forum to prepare various reports, which stimulates a creation of a broad expert network of the Northern Forum using the potential of the Russian-Asian Arctic Research Consortium and the partners of the Arctic Pavilion, and to take the most active part in preparing materials for the IPCC reports, which are directly used by all UN FCCC states. Engagement in such projects significantly strengthens the position of the Northern Forum as a key player at the global level on all aspects of climate change.



2. An agreement was reached with Vivekananda International Foundation and the Institute of Sustainable Development (India) to hold the Northern Forum - India Business and Scientific Forum in mid-March 2025 in New Delhi, ahead of the IX Raisina Dialogue Premier Conference. After COP29, practical work began on preparing the event and forming the delegation of the Northern Forum.
3. An agreement was reached with Nature and People Foundation on signing a cooperation agreement and joint preparation for COP30 in Belem (Brazil) as well as on supporting domestic reindeer husbandry and monitoring wild reindeer populations.



4. Negotiations were held with the Chair of the Senior Arctic Officials Morten Høglund and AMAP Executive Secretary Rolf Rødven, where we discussed a more active involvement

of the states and observer organizations in the activities of the Arctic Council and coordination of the Northern Forum activities with the Norwegian Chairship in terms of organizing different events outside the Russian Federation.



5. Right in the Arctic Pavilion, it was agreed to hold an AMAP session at COP29.
6. After the APECS session in the Arctic Pavilion, the NF Executive Director was invited to the APECS session in the cryolithozone pavilion, where, among other things, the issues of cooperation with the organizations of Latin America were discussed.



7. We agreed to establish joint work on school projects with Emaan Danish Khan (Pakistan), founder of the EARTH WARRIORZ children's non-profit organization. In December, the Northern Forum Schools Association held an online meeting with her, where they discussed some promising cooperation projects. Following her example, it was decided to organize a children's climate projects contest among the NF Schools Association and to annually select the Northern Forum Child Climate Ambassador.
8. It is also planned to start joint work through the Northern Forum Schools Association with the Protected Areas Embassy Foundation. We plan to arrange extra-curricular activities for schoolchildren on the issues of the Arctic development and research.
9. COP participant since 1993, climate expert of Nature and People Foundation, speaker at the number of sessions of the Arctic Pavilion Alexey Kokorin has produced a review *COP 29: Results and Prospects*.

10. The Pavilion's activities were continuously covered on the NF Telegram channel, the Arctic Pavilion and the Northern Forum websites. During the pavilion's work, interviews were given to the media of Azerbaijan, Slovenia, and Pakistan. The organizers and participants of the sessions published information about their sessions on the LinkedIn social network, with a number of links provided in the session descriptions in the "Pavilion Work" section. Russian participants published materials in the regional media and on the websites of their organizations.
11. Northern Forum Goodwill Ambassador Paul Fuhs (Alaska, USA) published an article in a number of Alaskan media based on his participation in COP29. Materials on some sessions were published in Associated Press, China Daily, etc. In addition, he prepared a concept for an educational course on the Arctic for schools and a Concept for the Arctic Energy Policy. It can be assumed that the work of the Arctic Pavilion, the activities of the Northern Forum, Andrey Melnichenko Foundation, partners, and organizers of the pavilion sessions have become known in almost all countries participating in the UN Framework Convention on Climate Change.
12. The Northern Forum has dramatically expanded its partnership network with many countries around the world. Invitations to hold Northern Forum events have come from Bangladesh, Oman, Nepal, Burundi, Brazil, etc. The proposals will be carefully considered. First of all, an event in India is being prepared.
13. Most organizers of the Pavilion events support the arrangement of a traditional Arctic Pavilion at the subsequent conferences of the parties to the UN Framework Convention on Climate Change and the UN Convention on Biodiversity, and express their willingness to become partners.



MAIN CONCLUSIONS

Positive points

1. The creation of the Arctic Pavilion in the Blue Zone of COP29 was a breakthrough event for the development of international and interregional cooperation in the Arctic. For the first time, a special platform for sessions on the Arctic issues was organized at COP and attracted considerable attention.
2. It was the Northern Forum's third time at COP after a long break, and each time the scale of participation is expanding, the NF delegation is beginning significantly contribute to the discussions on all aspects of climate change.
3. The cost of creating the pavilion and equipping it is significant and beyond the NF capabilities as a non-profit organization without the support of a sponsor(s). The support of Andrey Melnichenko Charity Foundation, which paid the full rent for the premises and its equipment, was a decisive factor in the success achieved.
4. The Arctic Pavilion has become a notable event and, in the future, has every chance of becoming traditional, since for the UNFCCC, the Conference Operator was directly convinced of the well-organized work of the international coordination group and the sponsor of the pavilion. All obligations were fulfilled within the established deadlines, the work of the coordination group was absolutely transparent, all issues were coordinated with the Conference Operator.
5. As noted by the participants of many sessions, it was almost for the first time at COP that an occasion arose for a direct dialogue between the representatives of the Arctic countries and organizations with the countries and organizations of the Global South, which significantly enriches all participants and allows for coordination of efforts to mitigate the effects of climate change and improve adaptation mechanisms.
6. The organizers of the sessions included the largest international organizations (UN structures, UNESCO, Intergovernmental Panel on Climate Change, IAEA, International Nuclear Agency, Arctic Council, European Federation of Geologists, Association of Young Polar Researchers, large organizations and companies from many countries, youth associations, etc.), which made it possible to form a very interesting and versatile program, covering all aspects of climate change.
7. Should the Arctic Pavilion operate at the subsequent COPs, the program may be even more intense, large-scale and productive.

Some lessons

1. The Pavilion's program was elaborated upon requests from its website and based on the communication between the Coordination Group members and the partners. In the future, it is advisable to develop the Pavilion website by the pavilion application deadlines and conduct preliminary work with the partners and organizers of the COP29 sessions.
2. In 2024, the program events were generally not interconnected and were distributed, in accordance with the initiators' applications, across the Pavilion's thematic days and did not result in a single outcome or document addressed for consideration when making decisions by countries.
3. Accordingly, a goal of participation in the next COP should be set. It is necessary to study the UNFCCC main documents and prepare draft proposals for presentation at the events of the main COP program, i.e., in addition to the application for a pavilion, it is necessary

to submit applications for holding side events within the main program. At the same time, it is necessary to agree to the terms of the Organizing Committee for cooperation with other organizations in preparing of side events. The likelihood of organizing your own side event is little and can be supported if an interesting topic is proposed that can generate interest from country delegations and key international organizations. In addition, it is advisable to organize sessions and presentations of the Northern Forum delegation members in other pavilions.

4. It is possible to consider the possibility of preparing a joint declaration of the participants of the Pavilion events addressed to the countries participating in the COP.
5. It is mandatory to organize sessions involving the heads of the NF regions. The participation of governors or regional governments is not seen anywhere at COP.
6. The Russian-Asian Arctic Research Consortium should hold events of the consortium itself, not just the member universities.
7. Some misunderstanding of the Pavilion events' participants resulted from the absence of sessions organized by its general sponsor. Such events would have generated great interest.
8. There should be a clear media plan for announcing the sessions and attracting participants and listeners. In Baku, a number of session organizers failed to attract the audience and had to speak to a very limited audience, which significantly reduced the effect. LinkedIn social network has proven its effectiveness in this regard. Most of the initiators of the main program sessions announced their events in the pavilions on this network. Undoubtedly, ensuring an early link between the pavilion website and COP website also proves effective.
9. In general, for the first time, a standard pavilion of 50 m² proved ample for the planned events. At the same time, in the future, it may be worth considering the possibility of building a customized pavilion of 100 m² maximum. Such pavilions attract significantly more attention, even if no sessions are held in them. A more spacious space allows for many meetings, negotiations, as well as for including more creative and attractive details.
10. The meeting room of 5 m² was of little demand. Its location in the middle of the Pavilion also played a role in its inactivity, at the same time significantly reducing the space for holding the sessions.
11. The mandatory requirement of the Operator to decorate the Pavilion only with the certain-sized posters became a limiting factor that did not allow to increase the external attractiveness of the Pavilion. At the same time, single-photo posters became only an element of the Pavilion decor, while those containing information about the Pavilion's organizer and partners attracted much more attention and allowed for a substantive dialogue with the visitors. This practice of combining photo posters with information stands should be continued. The Pavilion also needs a certain photo zone for visitors.
12. It is necessary to pay close attention to handouts. It turned out that they are in great demand and allow for the widest possible promotion of all organizers, partners, and sponsors. In 2024, there was an acute shortage of handouts. Any souvenirs are in great demand, primarily badges. But all other souvenirs were sought after as well.
13. A display showing at least two-day program is a must. The Q-Code of the website with the program is also an effective tool. Small flyers with a daily program are very useful; they can be distributed to other pavilions and handed out in different locations where COP events are taking place.

14. The arrangement of online English-Russian simultaneous interpretation in ZOOM played a very positive role, but it is necessary to explain to all organizers and participants in advance the need to connect to ZOOM for those who need translation.
15. It is undoubtedly necessary to have a bigger pavilion support team of at least 4 people. In 2024, two people coped with this work in general, but the fact that one of them was the NF Executive Director did not allow him to work at full capacity at other COP events, plan meetings and negotiations, which somewhat reduced the efficiency. At the same time, his direct participation made it possible to evaluate the pavilion's from almost all sides.
16. Some pavilions had coffee breaks and receptions for visitors. Such events are quite expensive and their effectiveness is not obvious. Perhaps a more effective form could be to organize a reception by invitations outside the Pavilion area.
17. COP30 will be held in November 2025 in Belém (Brazil) and the creation of the Arctic Pavilion could generate even greater interest, since Brazil is actively involved in research in Antarctica. The issues of melting glaciers and permafrost could become key topics for the Pavilion. The problems of food supply and use of energy for food production are also of interest to all countries. Ahead of the International Polar Year, special attention is paid to educating new generations of researchers aimed to work in the polar regions.

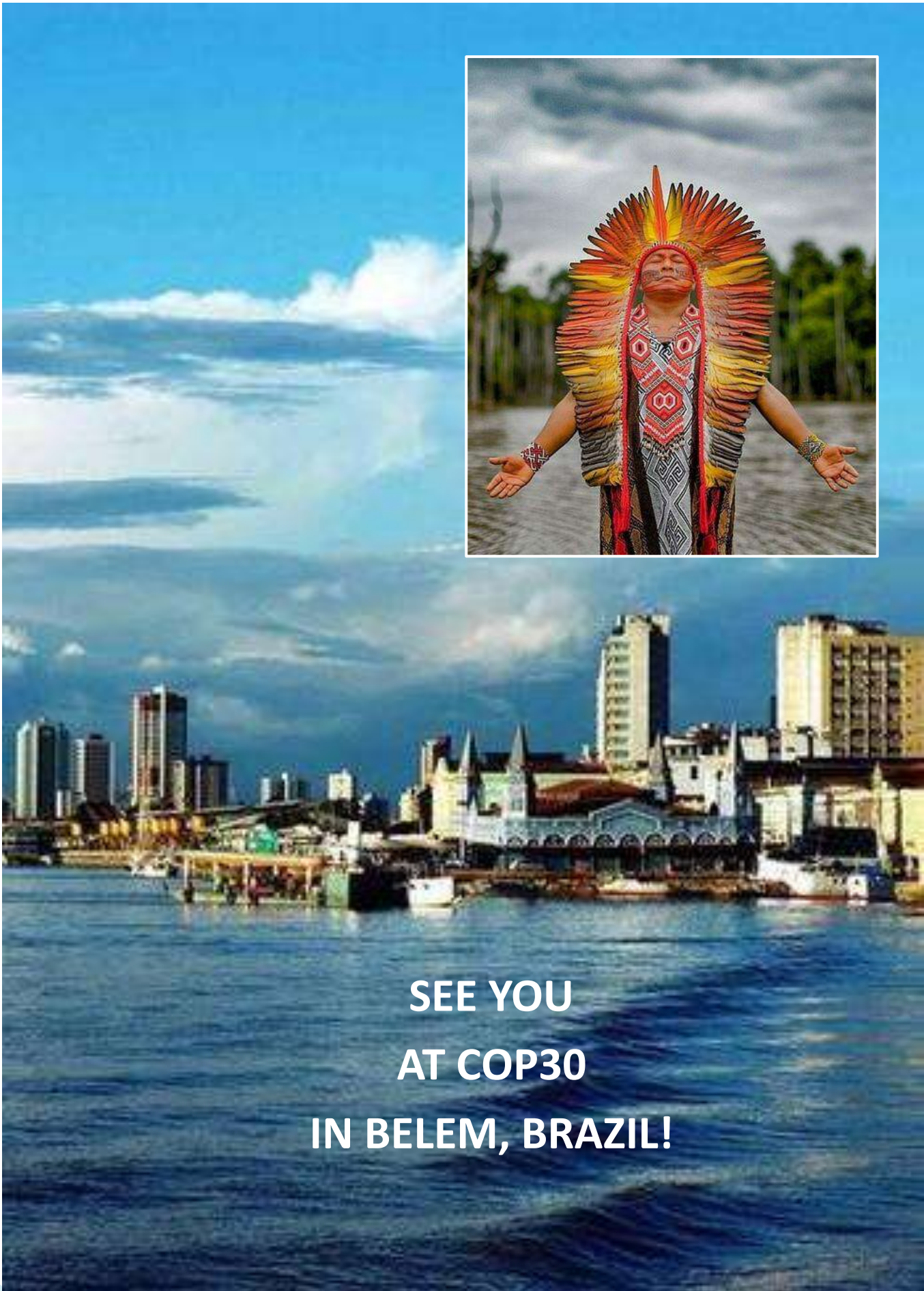
Thus, the experience of creating the first Arctic Pavilion clearly demonstrated its relevance. It is necessary to strive to make it traditional not only at the climate COP, but also at the COP on biodiversity.











**SEE YOU
AT COP30
IN BELEM, BRAZIL!**

