



SDM **04**
Agenda Item: 2.1.1
Person Responsible: V Gusakov

**XXXV SCAR Delegates Meeting
Davos, Switzerland, 25-26 June 2018**

Application of Belarus for Associate Membership

Report Author

Acad. Vladimir Gusakov

Summary

See attached membership application.

Recommendation

The Delegates consider the application of Belarus for associate Membership of SCAR.

Summary Budget 2017 to 2020

No budget implications other than the required Associate Membership fees.



Национальная академия наук Беларуси

December 22, 2017

Dear Prof. Chown,

The National Academy of Sciences of Belarus being an organization affiliated with the International Scientific Union of the Republic of Belarus, would like to inform You as the President of the Scientific Committee on Antarctic Research (SCAR) about its intention to become an associated member of this respected and recognized organization.

The Belarusian specialists took part in researches carried out in the Antarctic as part of the Soviet Antarctic expeditions from 1955 to 1992. The new stage of the Antarctic researches for our country began in 2006 when the Republic of Belarus acceded to the Antarctic Treaty. By now the significant experience in the carrying out of scientific researches, logistic, and other activities in the Antarctic has been accumulated and confirmed by scientific publications, participation in, and holding of scientific conferences.

A summary of the main directions of scientific activities of the Republic of Belarus in the Antarctic, prospects of the associate membership in SCAR, and planned contribution are given in the Appendix.

We would like to confirm our solidarity with the SCAR mission in promoting and developing of researches in the Antarctic region and express our intention to keep spirit and letter of the Antarctic Treaty and the Protocol on Environmental Protection to the Antarctic Treaty.

Let me express my gratitude for your attention to the possible association of the Republic of Belarus with the Scientific Committee on Antarctic Research and I am looking forward to the positive result of our application discussion and the accession to the community of SCAR members.

We'll highly appreciate you to inform the active SCAR members about our intention and consider the application of the Republic of Belarus at the nearest SCAR Meeting holding in Davos in 2018.

Appendix: Main Directions of the Scientific Activities of the Republic of Belarus in the Antarctic – 4 sheets.

Yours sincerely,

Acad. Vladimir G. Gusakov
Chairman of the Presidium
National Academy of Sciences of Belarus

Prof. Steven L. Chown
President of the Scientific Committee
on Antarctic Research (SCAR)
Australia

SCAR – Position paper of Belarus

Main Directions of the Scientific Activities of the Republic of Belarus in the Antarctic

The beginning of participation of Belarusian specialists in research of Antarctica dates back to the 1950th and have been pursued for many years in the framework of the Soviet and Russian Antarctic expeditions. All in all, for the period from 1955 to 1992 more than 130 specialists from Belarus visited Antarctica as members of different expeditions, thus gaining considerable experience in research, logistics and other activities. Belarusian polar explorers contributed in scientific studies of the Southern continent.

The new phase of Antarctic research for the Republic of Belarus started in 2006, when the Republic of Belarus acceded to the Antarctic Treaty in virtue of the Belarusian Law No. 157-3 on accession of the Republic of Belarus to the Antarctic Treaty of July 19, 2006. In 2008, the President of the Republic of Belarus signed the Decree No. 200 of April 10, 2008 on accession of the Republic of Belarus to the Protocol on Environmental Protection to the Antarctic Treaty.

With the purpose of provision of scientific research in the Antarctic in 2006 the first National Program on Monitoring of the Earth's Polar Areas and Promotion of the Arctic and Antarctic Expeditions in 2007-2010 and for the Period up to 2015 was adopted (as approved by Ordinance No. 1104 of the Council of Ministers of August 31, 2006). It was succeeded by the National Program on Monitoring of the Earth's polar areas and promotion of the Arctic and Antarctic expeditions for the period 2011- 2015, launched in 2011 (as approved by Ordinance No. 587 of the Council of Ministers on May 10, 2011).

In 2007, the Republican Centre for Polar Research, a governance authority, was organised for the practical implementation of the objectives set by the National Program.

For the period since the first National Program adoption, a considerable scope of work in Antarctica has been performed by scientists and specialists of the Republican Centre for Polar Research, research organisations of the National Academy of Sciences and other institutions involved in the Antarctic program. Since 2006 10 Belarusian Antarctic expeditions were organized.

The organization of the Belarusian Antarctic expeditions was carried out with great logistical and other support from the Russian Antarctic expedition (RAE). As agreed upon with the Russian Antarctic Expedition, in December 2007 the Belarusian seasonal field camp was organised near the Molodyozhnaya Russian Federation station at Mount Vechernyaya field base. To provide the vital activities of Belarusian polar explorers, a number of premises at Mount Vechernyaya field base were reactivated, top priority repair work was performed, scientific equipment was installed and meteorological, geophysical, ozonometric, geological, geochemical and biological experiments and observations have been started.

The main scientific objectives of the National Antarctic Programs for the period 2006-2015, were as follows:

- geophysical studies of the atmosphere, including lidar measurements of aerosol and cloud parameters, radiometric measurements of the aerosol layer and measuring of the Earth's surface albedo;

- comprehensive studies of ozone layer and UV radiation, including regular measurements of total atmospheric ozone in the vertical atmosphere column at the BAS, spectral analysis of solar ultraviolet radiation, monitoring of surface ozone concentrations and ionic composition of atmospheric air and determination of the vertical distribution of reactive gases;
- hydro-meteorological studies and climate research to be carried out in accordance with the WMO procedures, which might contribute to obtaining on-line seasonal hydro-meteorological information from the Antarctic region in concern, as well as to providing meteorological information for marine vessels and aircrafts;
- geophysical and geochemical studies of the Earth's crust at BAS surroundings; development of tectonophysical model of lithosphere formation and evolution at Enderby Land; study of the modern tectonosphere dynamics by permanent geophysical observations and monitoring of geophysical fields at geodynamic polygons;
- biological research, including the study of terrestrial and aquatic natural ecosystems, flora and fauna diversity (including mosses, lichens, phytoplankton and zooplankton, pelagic animals, zoobenthos), population features of birds and seals, avifauna migration dynamics, change of the local flora and fauna under the influence of natural and anthropogenic factors, prospective assessment of renewable living resources of the Antarctic coastal ecosystems, energy value of Antarctic fishes; microbiological investigations;
- geo-ecological studies, including observations of hydro-chemical composition of lakes water and atmospheric deposition, measurement of contents of hazardous contaminants (heavy metals, petroleum products, POPs), evaluation of anthropogenic impact on natural ecosystems; study of macro- and microelement composition of soils, accumulation of contaminants, specifics of pollutants accumulation and behavior in cold climate.

A number of scientific institutions of the National Academy of Sciences of Belarus (Institute for Nature Management, Center for Bioresources, Institute of Physics), National Ozone Monitoring Research and Education Center of the Belarusian State University, Belarusian University of Radiophysics and Electronics and some others are involved in the study of Antarctica. The results of the performed studies have allowed to supplement significantly and detail knowledge about the environment and natural ecosystems of the Enderby Land.

In 2013, at the XXXVI ATCM, the Republic of Belarus submitted an information paper on the intention to open a scientific station in the Antarctic, which will promote the status of the Antarctic Treaty Consultative Party and enhance the international authority of the Republic of Belarus.

The Draft and later the Final Comprehensive Environmental Evaluation (CEE) of the construction and operation of Belarusian Antarctic station has been elaborated pursuant to the Belarusian Antarctic Station Deployment Plan according to the EIA procedures set out in the Annex 1 to the Protocol on Environmental Protection to the Antarctic Treaty, national statutory instruments and specification related to EIA, with adaptations to the BAS specific operation.

Draft CEE was send to the Parties of the Protocol on Environmental Protection and presented at the CEP XVII (ATCM XXXVII) in Brasilia, 28.04-07.05.2014. It was noted at the CEP report that the

draft CEE generally conformed to the requirements of Article 3 of Annex I to the Protocol on Environmental Protection. The CEP suggested that, were Belarus to proceed with the proposed activity, there would be a number of aspects for which additional information or clarification should be provided in the final CEE.

After the XXXVII ATCM, significant work has been done to improve the Draft CEE. The document was amended concerning the station design, monitoring program, environmental protection measures, assessment of the current state of the environment and other sections of the CEE. At XXXVIII ATCM in Sofia (2015) Final CEE of Belarusian Antarctic station was approved, which created the prerequisites for the start of station construction, which began in at the end of the year.

To date, the basis of the BAS infrastructure has been formed, including a few residential and service modules, power supply sources, etc. The station is still operating in seasonal mode, but it is planned to be transformed into year-round operation. At the station research equipment for ozone measurements, actinometric observations, tropospheric aerosol monitoring, meteorological observations, etc. are used in summer period.

In 2016 a State Program 'Monitoring of the Earth's Polar Areas, construction of Belarusian Antarctic Station and Promotion of Polar Expeditions for 2016-2020' was approved and now is implemented. It foresees continuation of terrestrial and satellite monitoring of tropospheric aerosol, clouds and underlying surface in Antarctica; ozonosphere and ultraviolet radiation investigations; geophysical and geochemical surveys of the earth's crust in Antarctica; assessment of renewable living resources of the Antarctic coastal ecosystems, investigation of environmental and climate changes of Enderby Land and adjacent territories under the impact of natural and anthropogenic factors and scientific provision of fulfillment obligations of Republic of Belarus under the Protocol on Environmental Protection to the Antarctic Treaty.

In 2015 Belarusian Antarctic Program became a 30th member of COMNAP and actively participates in its activities.

For 10 years of active Antarctic research, the Republic of Belarus has certain achievements in the field of studying the polar regions. During this time, considerable experience has been accumulated in carrying out scientific research, logistical and other activities.

Belarusian scientists made certain contribution to the study of Antarctica in a number of scientific areas. In 2016, two monographs were published on the results of the research "Belarus in the Antarctic: the 10th Anniversary of the Beginning of Regular Scientific and Expeditionary Research" (in Russian and English) and "Construction and Operation of a Scientific Research Station in the Antarctic: the Experience of the Comprehensive Environmental Evaluation" (in English). Scientific articles have been prepared and published in the periodicals of Belarus, the Russian Federation, as well as in proceedings of international scientific conferences.

Thus, the results of the Antarctic research were reported at the XLII Tectonic meeting "Geology of the Polar Regions of the Earth" (Moscow, 2009), at the General Assembly 2016 of the European Geosciences Union (Vienna, Austria, 2016). In August 2017 scientists from Belarus participated in a scientific conference under the auspices of SCAR in Brussels (SCAR Biology Symposium).

Two international scientific conferences on the problems of studying of the Antarctic were held in Belarus (2014, 2016). In the first conference 60 scientists from 3 countries (Belarus, Russian Federation and Ukraine) took part, the second one was attended by 87 scientists from 6 countries

(Belarus, Russian Federation, the Ukraine, Bulgaria, France and New Zealand). A total of about 80 papers were presented at the conferences, devoted to biological, ecological, geochemical, climatic, geophysical, medical and other research in Antarctica.

The delegation of the Republic of Belarus has been actively participated in the ATCM and CEP meetings since 2007, and presented a number of information and working documents, including mentioned above the Draft (2014, ATCM XXXVII) and the Final (2015, ATCM XXXVIII) CEE.

In general, we believe that the studies performed and the capacity created are sufficient for Associate Membership of Belarus in SCAR, and in the long term, and we hope that with the help of SCAR, it will be strengthened sufficiently to obtain full membership.

Expectations of the Republic of Belarus from the Associated Membership in SCAR

The Republic of Belarus expects that, as an Associate Member of SCAR, Belarusian scientists will participate in setting priorities for international Antarctic research, and will have direct access to the results of the best Antarctic research in the world. We believe that SCAR will help to establish scientific contacts and cooperation with research groups in different countries. SCAR can help scientists in Belarus to implement the national Antarctic research program and develop partnerships. It is expected that SCAR will also help Belarus to present their results of Antarctic research and to identify specific opportunities to assist in building scientific and technological capacity for the successful implementation of the national Antarctic program. It will be timely and very valuable for Belarus to gain access to the opportunities provided by SCAR, such as scholarships for young scientists, scientific exchanges of scientists, databases and knowledge about the Antarctic, developed by scientists from different countries. It is important to establish, through SCAR, cooperation with specialized institutions and scientific communities, participation in Antarctic expeditions and the implementation of research at stations and equipment of other countries.

Planned Contribution of the Republic of Belarus to SCAR

The National Academy of Sciences of Belarus agrees with the SCAR mission in promoting Antarctic research, including observations from Antarctica, and promoting scientific knowledge, understanding and education on any aspect of the Antarctic region. In the person of Belarus, SCAR will find a reliable partner in the implementation of SCAR functions in the CEP and the ATCM, the Strategic Work Plan. The participation of Belarusian scientists and specialists in the work of SCAR and the groups under its aegis will serve to strengthen the authority of this organization, as well as the implementation of the spirit and letter of the Antarctic Treaty and the Protocol on Environmental Protection to the Antarctic Treaty.

The Republic of Belarus, through its organizations and scientists, plans to actively participate in the work of the Scientific Groups, Scientific Research Programs, Expert Groups and other communities within SCAR. The Republic of Belarus is ready, within the limits of the available opportunities, to accept scientists and specialists for conducting research from other countries.

National Academy of Sciences of Belarus will serve as the National Committee of Belarus to communicate with SCAR.