



«АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТИҢ  
ТӘУЕЛСІЗ АГЕНТТІГІ» КЕМ

НУ «НЕЗАВИСИМОЕ АГЕНТСТВО  
АККРЕДИТАЦИИ И РЕЙТИНГА»

INDEPENDENT AGENCY FOR  
ACCREDITATION AND RATING

## **REPORT**

**on the results of work of External Expert Commission  
aimed to assess the compliance to the standards of  
international accreditation of educational programs  
(based on ESG)**

**05.03.05 Applied Hydrometeorology  
05.03.06 Ecology and Environmental Management  
35.03.08 Aquatic Bioresources and Aquaculture**

**Russian State Hydrometeorological University**

**Site Visit Dates: from «4th» to «6th» December 2019**

**INDEPENDENT AGENCY FOR ACCREDITATION AND RATING  
External Expert Commission**

*to  
IAAR Accreditation Council*

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**from «4<sup>th</sup>» to «6<sup>th</sup>» December 2019**

**Saint Petersburg**

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## **(I) LIST OF ABBREVIATIONS AND ACRONIMS**

<b>RF</b>	The Russian Federation
<b>Minobrnauki RF</b>	Ministry of Science and Higher Education of the Russian Federation
<b>RSHU</b>	Federal state budget educational institution of higher education "Russian State Hydrometeorological University"
<b>AC</b>	Accreditation Council
<b>BY3</b>	Educational institution of higher education
<b>EI</b>	Educational institution
<b>IAAR</b>	Independent Agency for Accreditation and Ranking
<b>EEC</b>	External Expert Commission
<b>NQF</b>	National Qualifications Framework
<b>NSQ</b>	National System of Qualifications
<b>SCES</b>	State Compulsory educational standards
<b>SPDE</b>	State program for the development of education
<b>RLA</b>	Regulatory Legal Acts
<b>SRI</b>	Scientific Research Institute
<b>ILS</b>	Institute of Lifelong Studying
<b>IO RAS</b>	Institute of Oceanology named after P.P. Shyrshov of Russian Academy of Science
<b>AC</b>	Academic Council
<b>AS</b>	Academic staff
<b>MW</b>	Methodical work
<b>RW</b>	Research work
<b>SRW</b>	Students' research work
<b>QMS</b>	Quality management system
<b>SSS</b>	Students' Scientific Society
<b>ISO</b>	International Organization for Standardization
<b>Roshydromet</b>	the Federal service for Hydrometeorology and environmental monitoring of the Russian Federation
<b>EMC S</b>	Educational and methodological complex of the speciality
<b>EP</b>	Educational Programme
<b>USC</b>	United Students' Council
<b>MBEP</b>	Module Based Educational Program
<b>GAC</b>	General Academic Curriculum
<b>WC</b>	Working curriculum
<b>IC</b>	Individual curriculum
<b>AC</b>	Academic calendar
<b>GES</b>	General education subjects
<b>BD</b>	Basic disciplines
<b>PD</b>	Profile disciplines
<b>CED</b>	Catalogue of elective disciplines
<b>TMCD</b>	Training and Methodological Complex of Disciplines
<b>SGL</b>	Self-guided learning
<b>SGWST</b>	Self-guided work of students with a tutor
<b>DAEAAE</b>	the Department of Additional Education, Admission and Alumni Employment
<b>SCC</b>	State Certification Commission
<b>DE</b>	Distant education
<b>DET</b>	Distant education technologies
<b>ICT</b>	Information and communication technologies

**SCNIT**  
**MM**  
**ATF**

Specialised Centre for New Information Technologies  
Mass media  
Assessment tools fund



## **(II) INTRODUCTION**

In compliance with order № 117-19-OD of 06.11.2019 by Independent Agency for Accreditation and Rating from «4<sup>th</sup>» to «6<sup>th</sup>» December 2019 External Expert Commission implemented assessment of the compliance of educational programs 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture to the standards of international accreditation of Independent Agency for Accreditation and Ranking (№68-18/1-OD of 25.05.2018).

External Expert Commission (EEC) Report contains assessment of the compliance to the IAAR international standards of educational programs submitted to international accreditation, EEC's recommendations on further improvement of the educational programs and parameters of educational programs profile.

### **EEC included:**

**1. IAAR EEC Chair** – Kosov Vladimir Nikolaevich, PhD in Physico-mathematical sciences, professor, Kasakh National Pedagogical University named after Abay (Kazakhstan, Almaty);

**2. IAAR Expert** – Javier Rodrigo Ilarri, Associate Professor, Ph.D., Dept. of Hydraulic Engineering and Environment, Technical University of Valencia (Valencia, Spain);

**3. IAAR Expert** – Prof. Muhammad Afzal, Professor, School of Earth and Ocean Sciences, Cardiff University (Cardiff, Great Britain);

**4. IAAR Expert** – Riadnov Alexei Anatol'evich, PhD in Biological sciences, professor, correspondent member of Russian Academy of Natural Sciences, Volgograd State Agricultural University, expert for Rosaccredagentstvo (National Accreditation Agency) (Volgograd, RF);

**5. IAAR Expert** – Duskaev Kasym Koianbaevich, PhD in Technical sciences professor, Kasakh National University named after al'Farabi (Kazakhstan, Almaty);

**6. Employers Representative for IAAR** – Kondrat'ev Sergei Alexeevich, PhD in Physico-mathematical sciences, deputy director for research at The Institute of Limnology, Russian Academy of Sciences (Saint Petersburg, RF);

**7. Student for IAAR EEC** – Yakovleva Yana Nikolaevna, student of EP "Ecology and Environmental management", Saint Petersburg State Forest Technical University (Saint Petersburg, RF);

**8. IAAR Observer** – Kanapyanov Timur Yerbolatovich, PhD, Head of International Projects and Public Relations, IAAR (Nur-Sultan)

### **(III) PRESENTATION OF EDUCATIONAL INSTITUTION**

Federal state budget educational institution of higher education "Russian State Hydrometeorological University" (RSHU, University) is a higher educational institution of federal subordination. It is the only university in Russia that offers courses in the field of hydrometeorology, sustainable natural resources management and environmental studies aiming at training of highly qualified specialists for the regions of the North, Siberia, and the Far East.

The strategic objective of the University is formation of progressive scientific and educational, analytic, consulting and engineering center of the international level in the sphere of environmental science that would become one of the leading world Universities in terms of level of expertise and quality of development products. This will make considerable practical contribution to innovative development and global competitiveness of Russia.

The founder of RSHU is the Russian Federation. Functions and powers of the founder of the University are realized by the Ministry of Science and Higher Education of the Russian Federation.

RSHU was established in 1930. It was named Moscow Hydrometeorological Institute. It has been renamed several times. 1941 – Higher Military Hydrometeorological Institute; 1945 – Leningrad Hydrometeorological Institute (civic); 1992 – Russian State Hydrometeorological Institute; 1998 – Russian State Hydrometeorological University; 2002 – State educational institution of higher professional education "Russian State Hydrometeorological University"; 2011 – Federal state budgetary educational institution of higher professional education "Russian State Hydrometeorological University"; 2015 – Federal state budget educational institution of higher education "Russian State Hydrometeorological University".

Educational activity license of October 19, 2017; registration number 2664, series 90J01 № 0009756 (valid infinitely). Current status of accreditation: Accredited. Accreditation certificate of December 26, 2018, registration number 2971, series 90A01 № 0003116 (valid until December 26, 2024).

Location – 192007, 79, Voronezhskaya St., Saint Petersburg, Russia. Rector is Valery Leonidovich Mikheev. University is governed in compliance with legislation of The Russian Federation, Charter of RSHU, and on principles of combination of unity of command and collegiality. Charter of RSHU was approved by the Order of the Ministry of Science and Higher Education of the Russian Federation by 16.11.2018 № 972. The General management of the University is carried out by the Academic Council.

Currently RSHU realizes 26 bachelor's EP (within 17 directions of higher education), 17 master's EP (within 5 directions of higher education), 1 specialist's EP (1 directions of higher education), 8 postgraduate EP (within 4 directions). Besides there are programs of additional professional education in the form of advanced training and professional retraining: 30 advanced training programs and 8 professional retraining programs. Ecology and Environmental Management: 10 advanced training programs, 1 professional retraining program. Oceanology: 1 advanced training program and 1 professional retraining program. Aquatic Bioresources: 1 advanced training program and 1 professional retraining program.

The number of students at RSHU (for all EP) for 03.12.2019 is presented in Table 1

Table 1

Level of education/form of education	Correspondence	Full-time	Part-time	Overall number
<b>bachelor's EP</b>	889 (of them 7 foreigners)	2 683 (of them 344 foreigners)	19	3 591

<b>master's EP</b>	127 (of them 1 foreigner)	258 (of them 36 foreigners)	252 (of them 144 foreigners)	637
<b>specialist's EP</b>		131		131
<b>postgraduate EP</b>	15	27 (of them 18 foreigners)		42
<b>Overall number</b>	1 031	3 099	271	4 401

RSHU has 4 studying buildings, overall area of all buildings that belong to University is 63117 square meters. Studying and laboratory facilities take 33456 square meters, of them studying facilities – 28348 square meters, which includes inside sports facilities of 689 square meters. Research units take 845 square meters. Area of utility rooms is 2305 square meters. RSHU has 5 dormitory buildings for students who come from outside Saint Petersburg (overall area 29 127,5 square meters).

RSHU interacts with educational, research, professional organizations at the local, regional and national levels, whose activities are related to the profile of educational programs implemented at the University: regional branches and observatories of Roshydromet, reserves and landscape complexes in the suburbs of St. Petersburg and the Northwest of Russia, profile organizations of St. Petersburg and other cities. There are departments that have been created in cooperation with: FSBO Arctic and Antarctic research Institute (AARI), JSC "Scientific research Institute "Masshtab", JSC "SPIIRAN-Scientific and technical Bureau of High Technologies", JSC "Concern " OKEANPRIBOR", FSBIS "Marine hydrophysical Institute of RAS", national research center "Kurchatov Institute".

The most important strategic partner of the University in Russia is the Federal service for Hydrometeorology and environmental monitoring of the Russian Federation (Roshydromet). Within the framework of this partnership, mutual obligations for career guidance, training and retraining of personnel are envisaged, including the organization of practices, internships, etc.

The strategic partners of the University include the Ministry of emergency situations, the Ministry of natural resources and the Ministry of defense of the Russian Federation.

RSHU is a member of the Magna Charta of Universities. RSHU is working to ensure the participation of the Russian Federation in the voluntary cooperation programme of the World Meteorological Organization (WMO), a specialized Agency of the United Nations. In accordance with the Agreement between the Government of the Russian Federation and the world meteorological organization of 25 January 1995 and on the basis of order No. 30/508 of 24 March 1995 of the Federal service for Hydrometeorology and environmental monitoring and the State Committee for higher education of the Russian Federation the WMO Regional training centre in the Russian Federation was established.

RSHU is a member of the UNESCO University network, which unites the universities of Portugal (Aveiro), Spain (Cadiz), Latvia (Riga), Italy (Bologna), Russia (RSHU).

RSHU is an active participant of the European academic mobility programs "Erasmus Plus" and "Eranet Mundus". In 2007, the Moscow office of the Tempus program recognized RSHU as the best in the implementation of European academic mobility programs. At present RSHU participates in European academic mobility programs: Direct mobility program (University of Lodz (Poland)); North-to-North academic mobility program of the University of the Arctic (more than 100 participating universities from Arctic and non-Arctic countries). Over the past 3 years, 25 students of RSHU have participated in various academic mobility programs.

The University has partnerships with more than 50 leading foreign Universities.

In 2011, by the decision of the Ministry of education and science of the Russian Federation, RSHU received a grant to conduct research together with world scientists. World-renowned scientist Dr. Bertrand Chapron from the research Institute for the study

and exploitation of marine resources IFREMER became the scientific supervisor of the project (laboratory of satellite Oceanography). Currently, the laboratory of satellite Oceanography carries out the following projects: project "System" (funded by the Russian scientific Foundation, agreement No. 17-77-30019, theme: "sea ice-ocean-atmosphere System in the Arctic according to satellite observations and modeling", implementation period: 2017-2020); RSF project (funded by the Russian science Foundation, agreement No. 19-17-00236, theme: "Sea ice in the Arctic: development of satellite monitoring methods and tools", implementation period: 2019-2021); Project "Ocean" (funded by the Ministry of education and science of the Russian Federation, contract No. 5.2928.2017 / PCH, theme: "Development of new methods for the study of extreme events in the ocean-atmosphere system based on synergetics of satellite measurements and modeling", implementation period: 2017-2019). To commercialize the developments of the satellite Oceanography Laboratory of RSHU in 2012, a limited liability Company "Satellite Synergetic Tools" (LLC "Sintul") was established. The founders of the Society were the University, as well as the management of the Laboratory from the Russian and French sides.

RSHU participates in international educational (ECOIMPACT project "Adaptive learning environment for the development of competencies in relation to the impact of local weather, air quality and climate on the economy and social life", SUNRAISE project "Sustainable nature management in mountain and polar regions") and research projects (C009 Capacity4MSP project "Enhancing Capacities in the field of Marine spatial planning", "Barents Startup" Platform in the context of forecasting personnel needs for the Arctic).

RSHU actively cooperates with national hydrometeorological services and leading research institutes in different countries specializing in research in the field of Earth sciences. Today the University implements international research projects with scientific institutions of Vietnam, Finland, Germany, Slovakia, Sweden and France.

RSHU scientists participate in joint projects initiated by the Government of the Russian Federation and the Government of foreign partner countries. RSHU is a member of the Russian-Vietnamese friendship, UArctic (Canada, USA, Norway, Sweden, Finland, Denmark), is a member of the group of experts of the National Committee for the promotion of economic cooperation with Latin America. Currently, there is close cooperation with scientific and educational institutions of China, France, Germany, Scandinavian countries, Latin America, BRICS countries, the Republic of Burundi.

Currently RSHU has 2 dissertation councils: D 212.197.01 Specialty 25.00.30-Meteorology, climatology and agrometeorology (physical, mathematical and geographical Sciences); D 212.197.03 Specialty 25.00.35 — Geoinformatics (technical Sciences), Specialty 25.00.36 — Geoecology (geographical Sciences).

RSHU participates in ratings: Univer, EXPERT, Academic critic (scientific weight rating); subject ratings (Geophysics, environmental protection, Human ecology, biology, physics, state and law, Legal Sciences, Economics. Economic Sciences, chemistry, Geology, agriculture and forestry, public education. Pedagogy, linguistics, automation. Computer technology)) and in the rating compiled on the website of the Vuzoteka.ru.

The leading teachers of RSHU are invited to give lectures.

Director of the Institute of hydrology and Oceanology, Ph. D. T.R.Eremina - University of Klaipeda, Lithuania (2009-2010); II international youth summer school "Coastal zone of the sea: in research, management and prospects", held on the research vessel "Academician Sergey Vavilov" from 29.08.2019 to 07.09.2019 in the Baltic sea in the exclusive economic zones of Russia, Sweden and Poland. Associate Professor, PhD Gordeeva S. M. - University of Klaipeda, Lithuania (2014). Associate Professor, Ph. D. Plink N. L.-University of Cadiz, Spain (2013-2017). Associate Professor A. A. Ershova - University of Cadiz, Spain (2015). Associate Professor Semeoshenkova V. S. - University of Cadiz, Spain (2019).

### **EP 05.03.05 Applied Hydrometeorology (profile "Applied Oceanology")**

EP is realized at the Department of Oceanology of The Institute of Hydrology and Oceanology. As of December 3, 2019 there are 301 students (of them 2 are foreign): full-time – 212, correspondence – 89.

Continuity of education of students of EP is supported by the following level of education – master course in 05.04.05 Applied Hydrometeorology (as of December 3, 2019 224 students (158 full-time, 66 correspondence) are trained in 05.04.05 Applied Hydrometeorology at RSHU. After the master's degree, one can continue training in the program of training of highly qualified personnel on the postgraduate course 05.06.01 Earth Science, Oceanology profile (as of December 3, 2019 10 graduate students (1 full-time, 2 correspondence) are trained in 05.06.01 Earth Science, Geoecology profile, at RSHU.

Implementation of the EP is provided by 39 teachers (85% have a degree and/or title, including: 26 candidates of science, 3 doctors of science, 17 associate professors, 3 professors, 1 senior researcher).

Scientific projects carried out in the field of activity include: Extreme weather events in the ocean-atmosphere system on the basis of synergistic analysis of satellite measurements and modeling (France, Ministry of higher education and science, Federal target program 4700000 rub); WAVE 2 Satellite diagnostics of nonlinear internal waves in the Arctic: hot spots, characteristics, dynamics (Ministry of higher education and science, Grant of the President of the Russian Federation for state support of young Russian scientists 500000 rub); WIND Research of extreme weather events on the ocean surface by methods of mathematical modeling (Russian Science Foundation, 11000000 rub); EXTREME Monitoring and forecast of extreme weather events in the Arctic (Russian Science Foundation, 12000000 rub); SYSTEM Sea ice-ocean-atmosphere system in the Arctic according to satellite observations and modeling (Russian Science Foundation, 84000000 rub); OCEAN Development of new methods of research of extreme weather events in the ocean-atmosphere system on the basis of synergetics of satellite observations and modeling (Ministry of science and higher education of the Russian Federation, 10000000 rub.); ECOBALT Assessment of the impact of climatic and biological factors on the evolution of coastal ecosystems of the Baltic sea (Ministry of science and higher education of the Russian Federation, 4000000 rub.); ICE Sea ice in the Arctic: development of methods and means of satellite monitoring (Russian Science Foundation, 6000000 rub.)

The advantage of the EP is the possibility of involving students in the research carried out by scientific research unit Laboratory of Satellite Oceanography and participation of highly qualified specialists in the educational process. As part of the "Megagrant" project, the Laboratory of Satellite Oceanography of RSHU developed a pilot course of lectures on remote sensing of the Earth from space. Moreover, the Laboratory carries out the following projects: Project "System" (funded by Russian Science Foundation, agreement No.17-77-30019, theme: "Sea ice-ocean-atmosphere system in the Arctic according to data of satellite observations and modeling", implementation period: 2017-2020); RNF project (funded by the Russian Science Foundation, agreement No.19-17-00236, theme: "Sea ice in the Arctic: development of satellite monitoring methods and tools", implementation period: 2019-2021); Project "Ocean" (funded by the Ministry of Education and Science of the Russian Federation, contract No. 5.2928.2017/ПЧ, theme: "Development of new methods for studying extreme events in the ocean-atmosphere system based on synergetics of satellite measurements and modeling", implementation period: 2017-2019). To commercialize the developments of the Laboratory of Satellite Oceanography of RSHU a limited liability company "Satellite Synergetic Tools" (LLC "Sintul") was established in 2012. The founders of the Society were the University, as well as the management of the Laboratory from the Russian and French parties.

Under the international educational project "Advanced three-level competence-oriented educational programs in the field of marine applied Sciences" (eMaris) of the European Union TEMPUS program, scientific developments in this area were introduced into the educational process – a training course on "Operational Oceanography" was developed.

According to the EP active student mobility was provided within the framework of the international project eMaris of the TEMPUS program (2011-2014), when joint training of teachers in foreign universities (University of Cadiz, Spain, Bremen, Germany, Klaipeda, Lithuania), student exchange, postgraduate training at the universities of Cadiz (UCA) and Klaipeda (KU) were organized. After the end of the project, student mobility decreased slightly to single trips, however, the students of the EP participate in international summer scientific schools organized in Sweden (2 students), Germany (1 student). In March 2019, 4th year students (5 students) were trained (3 ETC) at the Lammi biological station of the University of Helsinki and received participant diplomas.

When conducting work experience internship, contracts are signed with leading organizations and enterprises in the profile area, including contracts with: the southern branch of the Shirshov Institute of Oceanology of the Russian Academy of Sciences (IO RAS); the St. Petersburg branch of the Shirshov Institute of Oceanology of the Russian Academy of Sciences (IO RAS); the Federal Research Center Southern Scientific Center of the Russian Academy of Sciences (UNC RAS); the Polar Research Institute of Marine Fisheries and Oceanography named after Knipovich" (PINRO); FSBI "VNII Okeanologiya"; North-West Roshydromet; Astrakhan State Technical University; Arctic and Antarctic Research Institute; St. Petersburg Federal Autonomous Educational Establishment for Higher Vocational Education "Admiral D.N. Senyavin Maritime Technical College (SPBMTC); Machine-Building plant Vineta LLC.

Upon completion of training, graduates are employed in organizations and institutions of the Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet), the Ministry of Defense (Department of Navigation and Oceanography of the Ministry of defense, etc.), the Ministry of Science and Higher Education of the Russian Federation, the State Oceanographic Institute named after N.N. Zubov, Arctic and Antarctic Research Institute, all-Russian research Institute of Fisheries and Oceanography (VNIRO), VNIRO divisions (AtlantNIRO, PINRO, SevPINRO, Chukotniro, KamchatNIRO, SakhNIRO, YugNIRO), RAS divisions (Institute of Oceanology, Shirshova RAS, etc.), commercial enterprises engaged in the design and scientific support of marine hydraulic structures (LENMORNIIPROEKT, Baltmorproekt, Eco-Express Service, etc.).

RSHU constantly monitors the employment of graduates, data on the employment of graduates are publicly available on the University's website <http://www.rshu.ru/sveden/grants/>.

#### **EP 05.03.06 Ecology and Environmental Management (profile "Ecological Problems of Big Cities, Industrial Zones and Polar Regions")**

EP is realized at the *Department of Applied and Systems Ecology*, Ecological Faculty. As of December 3, 2019 there are 523 students (of them 25 are foreign): full-time – 435, correspondence – 88.

Continuity of education of students of EP is supported by the following level of education – master course in 05.04.06 Ecology and Environmental Management (as of December 3, 2019 173 students (94 full-time, 79 – part-time) are trained in 05.04.06 Ecology and Environmental Management at RSHU. After the master's degree, one can continue training in the program of training of highly qualified personnel on the postgraduate course 05.06.01 Earth Science, Geoecology profile (as of December 3, 2019 10 graduate students (7 full-time, 3 correspondence) are trained in 05.06.01 Earth Science, Geoecology profile, at RSHU.

Implementation of the EP is provided by 69 teachers (73% have a degree and/or title, including: 36 candidates of science, 15 doctors of science, 17 associate professors, 10 professors, 4 senior researchers).

Scientific projects carried out in the field of activity include: MACROFIT Integrated assessment of sustainability and ecological well-being of aquatic ecosystems (Russian Foundation for fundamental research 450000 r.); AQUACULTURE Development and implementation of the project of plantation of aquaculture facilities in the waters of Tsemesskaya Bay of the Black sea (LLC "Research Institute of Transport of Oil and Petroleum Products" 1480000 r.); NATURE Scientific studies of the dynamics of pollutants entering the Baltic Sea from the Russian part of the catchment area in 2016 and 2017 and preparation of scientifically-based proposals to ensure applications for the exclusion of objects having a significant negative impact on the environment in accordance with the criteria of the Commission for the protection of the marine environment of the Baltic Sea region (HELCOM) from the Joint integrated environmental protection program in the Baltic sea region (Ministry of Natural Resources, 9 183 035 r.).

Training and research station "Valaam" is an important separate unit in the structure of Ecological faculty, which has worked in close cooperation with the Department of Applied and Systems Ecology since the late 90-s. In 2015-2016, RSHU participated in grant with the Russian Geographical Society "Ecosystems of the Valaam archipelago (lake Ladoga) at the turn of the 20th and 21st centuries: features of uniqueness and current state". The project was carried out on the basis of the training and research station "Valaam". One result of the project was the creation of an illustrated Atlas, which included new materials obtained in the course of work on the project, and data from multi-year research at the Valaam archipelago on the basis of educational-scientific station of RSHU on the island. Currently, the station "Valaam" provides apprenticeship location and research work for students and teachers. The station is an active participant in the international Pan-Eurasian Experiment (PEEX-pan-Eurasian Experiment) program one of the tasks of which is to ensure global stability in the Northern Eurasia. Information about the research conducted at the station is available in the electronic directory (PEEX Collaborating Stations in The Russian Federation - Catalogue) - <https://www.atm.helsinki.fi/peex/index.php/peex-russia-in-situ-stations-e-catalogue>.

Students and teachers actively participate in academic mobility programs under the Erasmus+ mobility project and bilateral agreements.

When carrying out work experience internships, contracts are signed with leading organizations and enterprises in the profile area, including contracts with: FSBO Botanical Institute named after V.L. Komarov, RAS; Ministry of Natural Resources and Ecology of the Kamchatka Region; Department of subsoil use in the North-Western Federal district; Department of the Federal service for supervision of natural resources in the North-Western Federal district; Committee on natural resources, environmental protection and environmental safety; Department of Natural resources and environment of Mihao County, Hyngyen province, Vietnam; Acting Agency of mineral resources and oil under the government of Mongolia, Ulaanbaatar; FSBI "North-Western Department of Hydrometeorology and environmental monitoring"; FSBI "Caucasian state biosphere reserve named after H. G. Shaposhnikov"; FSBI Institute of Forestry RAS; JSC "RN-Nyaganneftegaz".

Upon completion of training, graduates are employed in organizations and institutions of the Ministry of Science and Higher Education of the Russian Federation, the Ministry of Natural Resources and Ecology of the Russian Federation, in various commercial and government organizations, such as the territorial production association "Yamalneftegaz", LLC "LUKOIL - Western Siberia", PJSC "LUKOIL", SUE "Vodokanal SPb", The main Directorate of the EMERCOM of Russia in the Leningrad region, SUE "Vodokanal

SPb", the Committee of state environmental supervision of the Leningrad region, LLC Gazprom design, the Committee for nature management, environmental protection and environmental safety, JSC "Research Institute for fertilizers and insectofungicides named after Professor Ya. V. Samoilov", FGBNU "State research Institute of lake and river fisheries. HP Berg", Transneft – Baltika LLC, Committee on natural resources of Leningrad region, Geolocation platform HERE Technologies, LLC "lik", JSC "Atomproekt", FSBI "North-Western Department for Hydrometeorology and environmental monitoring", Department of Rosprirodnadzor for the North-Western Federal district, Resource center of NGO "Round table", LLC North-Western construction company, FSBI "Arctic and Antarctic research Institute", FGBNU Agrophysical Institute, JSC "Atomproekt" and many others.

RSHU constantly monitors the employment of graduates, data on the employment of graduates are publicly available on the University's website <http://www.rshu.ru/sveden/grants/>.

#### **EP 35.03.08 Aquatic Bioresources and Aquaculture (profile "Aquatic Bioresources Management and Aquaculture")**

EP is realized at the *Department of Aquatic Bioresources, Aquaculture and Hydrochemistry*, Ecological Faculty. As of December 3, 2019 there are 82 students (of them 25 are foreign): full-time – 46, correspondence – 36.

Continuity of education of students of EP is supported by the following level of education-master course in 05.04.06 Ecology and Environmental Management (as of December 3, 173 students (94 full – time, 79-part-time) are trained 2019 in 05.04.06 Ecology and Environmental management at RSHU.

Implementation of the EP is provided by 25 teachers (72% have a degree and/or title, including: 15 candidates of science, 3 doctors of science, 8 associate professors, 3 professors, 2 senior researchers).

The Department has a Student scientific society, consisting of talented and active students and teachers (as leaders). To guide the scientific work of students the organizations-partners are involved, including GosNIORKh, Zoological Institute of the Russian Academy of Sciences, Institute of Evolutionary Physiology of Russian Academy of Sciences, the Institute of Lymnology of RAS, Federal Selection-genetic Center of Fisheries, North-West branch of Glavrybvod, North-Western territorial administration of Federal Agency for fishery, fish farms of St. Petersburg and Leningrad region, for example, LLC "Aquainterio", LLC "Forvat". As part of the scientific activities of students, the Department organizes and participates in the annual Interuniversity scientific and practical conference of students and young scientists "Issues of aquaculture development" (in 2017, the Department organized the 1st Interuniversity conference, in 2018 and 2019 participated in the 2nd and 3rd Interuniversity conference in St. Petersburg State Agrarian University and St. Petersburg Marine Fisheries College). In 2017, the Department organized the scientific conference of students and young scientists in the framework of the festival "Morphest-2017".

The Department cooperates with NACEE — Network of Aquaculture Centers Of Central and Eastern Europe. The Department took part in many NACEE projects, including: international scientific conferences of young scientists of NACEE. Three international conferences of NACEE (in 2011, 2014, 2016) were held at RSHU. RSHU together with NACEE take part in implementation of the TARAS and INTERREG EU projects.

As part of its work with NACEE, RSHU took part in the European TARAS project. On December 02-04, 2019, the 2nd international TAPAS Seminar was held at RSHU due to the efforts of the Department of aquatic bioresources, aquaculture and hydrochemistry.

In addition, the Department takes part in the implementation of the international project of the Nordic countries – INTERREG (project for more complete use of aquaculture products in the Nordic countries).

The academic mobility was attended by: acting head of the Department S.V. Korolkova, who had an internship in Finland, 3 students who studied at the International summer school on aquaculture in Vodnyany, South Czech University, CeskeBudeevitsy, the Czech Republic.

When carrying out work experience internships, contracts are signed with the leading organizations and enterprises in the profile area, including contracts with: FSBSI "State Research Institute of lake and river fisheries named after L.S. Berg" (Gosniorh), St. Petersburg; FSBI "General Directorate for fisheries and conservation of aquatic biological resources" North - West branch, St. Petersburg, and its constituent 5 fish hatcheries in the Leningrad region; FSBI "Federal breeding and genetic center of fish farming" in the Ropsha village, Leningrad region (FBGSCF Ropsha); LLC "Aquainterio", St. Petersburg; JSC Oceanarium St. Petersburg (SC "Neptune Planet"), SPRK "Collective farm " Krasny Rybak", private fisheries "IP Belyaev", "IP Popov", "IP Fedko", "SM-Resource.

Upon completion of training, graduates are employed in organizations and institutions of Glavrybvod, the Federal Agency for fisheries and the all-Russian Research Institute of Fisheries and Oceanography; in various industrial fisheries, growing valuable food species of fish – sturgeon, salmon, carp, etc., mariculture enterprises using sea bays, and freshwater aquaculture enterprises using ponds, garden farms in lakes, installation of closed water supply; in the farms specializing in fish breeding for amateur and sports fishing; in the engineering companies engaged in design and creation of "turnkey" fisheries, including RAS; in fish protection in specially protected natural territories and water areas; in zoos, dolphinariums, oceanariums.

RSHU constantly monitors the employment of graduates, data on the employment of graduates are publicly available on the University's website <http://www.rshu.ru/sveden/grants/>.

#### **(IV) PREVIOUS ACCREDITATION PROCEDURE DESCRIPTION**

Educational programs 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources have been submitted for international accreditation for the first time.

#### **(V) EEC VISIT DESCRIPTION**

The work in the EEC was carried out on the basis of the approved program of the visit of the External Expert Commission on international accreditation of educational programs to RSHU in the period from 4<sup>th</sup> to 6<sup>th</sup> December 2019.

To coordinate the work of the EEC 03.12.2019 a meeting was held, where responsibilities were distributed between the members of the Commission, the schedule of the visit was revised, the choice of methods of examination was agreed on.

To obtain objective information about the quality of educational programs and the entire infrastructure of the University, to clarify the content of self-assessment reports, meetings were held with the acting rector, Vice-rectors of the University in areas of activity, heads of structural divisions, deans of faculties, heads of departments, teachers, students, graduates, employers. A total of 141 representatives participated in the meetings (Table 2).

Table 2 – Information on target groups participating in meetings with EEC of IAAR:

<b>Participants category</b>	<b>Number</b>
the acting rector, Vice-rectors	3
heads of structural divisions	11
heads of departments, EP heads	4
teachers	20
students	75
alumni	16
employers	12
<b>overall</b>	<b>141</b>

During the tour, the members of the EEC got acquainted with the state of the material and technical base of the accredited EP:

- Visited the educational building No. 1 (Malookhtinskii prospect, 98): the Laboratory of Satellite Oceanography, the classroom for classes in Synoptic meteorology, the Bureau of Meteorological Forecasts.

- Visited the educational building No. 4 (Rizhskii pr., 11): Library, reading room, Ecological and Analytical Laboratory, training laboratory of ichthyology, microbiology and methods of fisheries research, Training Laboratory of General Biology, Zoology and Hydrobiology.

At the meeting of EEC with the target groups of RSHU, the mechanisms for implementing the University's policy were clarified and certain data presented in the report on the University's self-assessment was specified.

EEC members attended classes:

- discipline "anatomy and physiology of fish", lecture "Metabolism and energy. Physiology of respiration", EP 35.03.08 Aquatic Bioresources and Aquaculture (profile "Aquatic Bioresources Management and Aquaculture"), 2nd year students, PhD in Biological Sciences Alexander Shoshin, associate Professor of the Department of Aquatic Bioresources, Aquaculture and Hydrochemistry (room 301, academic building No. 4)

- discipline "Geoinformation systems", lecture "use of GIS in Oceanology", 05.03.05 Applied Hydrometeorology (profile "Applied Oceanology"), 3rd year students, PhD in Geographical Sciences Dmitry Gustoev, associate Professor of the Department of Applied Oceanography of UNESCO-IOC and Complex Coastal Zones Management (room 101, academic building No. 4)

- discipline "Banks and databases in Geoecology", laboratory lesson on "Creating an application for accessing the SQLite database in the Lazarus development environment", EP 05.03.06 Ecology and Environmental Management (profile "Environmental problems of large cities, industrial zones and polar regions"), 4th year students, Babin Alexander V. senior lecturer of the Department of Applied and Systems Ecology (room 407, academic building No. 4).

- discipline "Environmental monitoring", presentation of course projects, 05.03.06 Ecology and Environmental Management (profile "Environmental problems of large cities, industrial zones and polar regions"), 4th year, PhD in Biological Sciences Anastasia Stepanova, associate Professor of the Department of Applied and Systems Ecology (room 303, academic building No. 4).

During the visit, the members of the EEC visited the base of apprenticeship on accredited FP: Federal Breeding and Genetic Center of Fish Farming of the branch of the FSBI "Glavrybvod" in the village of Ropsha, Leningrad region. The center was established in 1993 with the purpose of organizing breeding in aquaculture, preserving the gene pool of promising fish farming species and valuable commercial fish of inland waters, restoring the number of rare and endangered hydrobionts. Students of RSHU studying 35.03.08 "Aquatic Bioresources and Aquaculture", profile "Aquatic Bioresources Management and Aquaculture", go on two types of apprenticeship: educational – introductory (study breeding business organisation on the received knowledge in genetics and selection, and as a full-cycle fishery on the received knowledge on biological foundations of fish farming); production – in the framework of the disciplines "Artificial reproduction of fish" and "Reproduction of aquatic bioresources and aquaculture" on the selection of breeding materials of two species of fish-rainbow trout and Ladoga Palia, further fertilization of eggs, determining its quality and laying it for incubation.

In accordance with the accreditation procedure, a survey was conducted. 20 teachers, 73 students, including junior and senior students participated in the survey.

In order to confirm the information presented in the self-assessment Report, external experts requested and analyzed the University's working documentation. Along with this, the experts studied the Internet positioning of the University via the official website of the University <http://www.rshu.ru/>

Within the framework of the planned program, recommendations for improving the educational programs of RSHU submitted to accreditation, developed by the EEC based on the results of the examination, were presented at a meeting with the management on 06.12.2019.

## **(VI) COMPLIANCE WITH THE INTERNATIONAL STANDARDS OF ACCREDITATION**

### **6.1. Standard 1. QUALITY ASSURANCE POLICY**

#### **Standard:**

*Institutions should have a policy for quality assurance that is made public and forms part of their strategic management. Internal stakeholders should develop and implement this policy through appropriate structures and processes, while involving external stakeholders.*

#### **Guidelines:**

*Policies and processes are the main pillars of a coherent institutional quality assurance system that forms a cycle for continuous improvement and contributes to the accountability of the institution. It supports the development of quality culture in which all internal stakeholders assume responsibility for quality and engage in quality assurance at all levels of the institution. In order to facilitate this, the policy has a formal status and is publicly available.*

*Quality assurance policies are most effective when they reflect the relationship between research and learning & teaching and take account of both the national context in which the institution operates, the institutional context and its strategic approach. Such a policy supports*

- the organisation of the quality assurance system;*
- departments, schools, faculties and other organisational units as well as those of institutional leadership, individual staff members and students to take on their responsibilities in quality assurance;*
- academic integrity and freedom and is vigilant against academic fraud;*
- guarding against intolerance of any kind or discrimination against the students or staff;*
- the involvement of external stakeholders in quality assurance.*

*The policy translates into practice through a variety of internal quality assurance processes that allow participation across the institution. How the policy is implemented, monitored and revised is the institution's decision.*

*The quality assurance policy also covers any elements of an institution's activities that are subcontracted to or carried out by other parties.*

#### **The evidence part**

The members of the EEC found that the University has a Quality Assurance Policy focused on continuous improvement of the educational process, research activities, implementation of innovative projects. This policy is based on the mission, vision and values of the University. The University monitors the satisfaction of employers with graduates of the University.

The quality provision manual is focused on the improvement of working conditions, training, and encouragement of a creative initiative of teachers, employees and students on improvement of educational process and scientific research. To assure that the Policy in the field of quality is being implemented, improved, the administration of the University systematically analyzes the results of internal audits, tenders and sociological monitoring. The main functional strategies that allow the University to reach the level of the quality management process approach of training the specialists are formulated in the quality assurance documents.

In its work on quality assurance, Federal State Educational Institution of Higher Education "Russian State Hydrometeorological University" follows the Policy and Strategic Objectives of RSHU in the field of quality assurance approved by the decision of the Academic Council of April 23, 2013 Resolution № 9 <http://www.rshu.ru/university/history/qualitypolitic/>.

The quality assurance policy provides the basis for the development and analysis of the aims in the area of quality. The aims in the area of quality are to be complied with the quality assurance policy and commitment to permanent improvement of all processes defined at the University.

The quality provision manual is focused on the improvement of working conditions, training, and encouragement of a creative initiative of teachers, employees and students on improvement of educational process and scientific research.

The implemented quality policy creates sufficient conditions for the development and analysis of quality goals. In order to familiarize employees, students of RSHU and all interested parties with the implemented policy in the field of quality documents, after discussion in the team, an approved copy of the document is available on the University's website in the public domain.

The Commission was convinced that the University created and successfully operates the Centre for Education Quality Management and Normative Support (CEQMNS) and identified its main tasks.

To ensure educational activities at the University, local regulations have been developed in accordance with the requirements of GOST ISO 9001-2011, which are documents of the quality management system of Federal state budget educational institution of higher education "Russian State Hydrometeorological University. They are and published on the website of RSHU.

It has been proved that Annually the institutes, schools and departments of the University develop and approve annual work plans in which the goals and tasks are set to be accomplished via the fulfillment of the mission, the strategic plan and the purposes on quality. The plans of work are adopted at meetings of the corresponding departments, councils of institutes and faculties, at meetings of the Academic council and Training and methodological council where the members are the heads of divisions, academic staff and students. The most experienced academic staff and active students are involved as members of working groups to organize work in various areas of activity.

The Commission members have noted that internal quality control of students' training is provided in accordance with the QMS-OND-23/18 Regulations on the Internal System of Independent Assessment of the Education Quality.

The University internal independent assessment of education quality has the three-tiered hierarchical structure.

The main methods of internal education quality assessment in RSHU include observation, testing, analysis and result processing, surveys in the form of questionnaires for students, employees, employers, or in the form of self-control, audit for compliance with the requirements of the law, audit of documentation prepared by educational units for the procedure of state accreditation, post-licensing control, establishment of an effective contract, etc.

In 2019, RSHU was awarded the status of "the basic platform of the Federal Internet examination for bachelors (FIEB)".

Information about educational programs and their achievements is available on the faculty's page on the University's website and is available to a wide range of users, as well as published in brochures, University Newspapers and magazines, gift publications about the University, reference books about the institutions of the University.

The method of involvement of interested parties (administration, teachers, students, graduates and representatives of professional communities) in determining the goals and strategies of educational programs is established.

For example, temporary working groups were created: to prepare A program for strategic development and improving the competitiveness of faculties for the period 2018 - 2022, etc. There are also permanent working groups.

To gain opinions from the staff and students the following steps are taken annually.

1. Meetings with academic staff, students and postgraduate students are held.
2. There are polls, whose results are analyzed and taken into account to project

corrections in the educational work and extra-class activities. For example, one of the polls for students and employers concerns EP content, forms of realization and curriculums.

3. RSHU Rector holds open meetings with students. All the issues raised by students are properly considered, all the questions are answered, measures are taken to improve educational process, research work and extra-class activities.

To study the opinions of the professional groups heads and leading specialists from appropriate enterprises and organizations are involved

- in EP development.
- in State Certification Comissions.

When realizing cluster educational programs federal and regional quality assurance requirements are met, which implies:

- formation of RSHU development program on the basis of Federal and Regional normative documents;
- adoption of internal regulations on various aspects of educational process on the basis of Federal and Regional normative documents (for example, Regulations on the Final State Certification of the Student Trained in Higher Education Programs - Bachelor, Specialist, Master was developed in compliance with FSES HE, guidelines issued by associations for curriculum and methodology, and other documents);
- monitoring quality of education (ongoing control, mid-term assessment, final state certification, on-line testing);
- State accreditation.

An example of measures aiming at EP annual improvement of apprenticeship syllabi and topics for graduation thesis which involve formulating individual tasks to meet potential employers' expectations and requests from governmental bodies. All the listed measures allow RSHU to create innovative, competitive educational programs.

In order to efficiently manage EP there are special procedures that allow to make necessary amendments and improve EP. (QMS-PP 4.4/13 and QMS-PP 4.5/13). These procedures involve revealing and registration of drawbacks with their further analysis, correction planning, preventive actions, taking decision about the further realization or termination of EP)

The results of an anonymous survey of students show that 51% of students are completely satisfied with the relationship with the Dean, while 61.6% of students say that they are completely satisfied with the level of availability of the Dean's office. Similar results were obtained for other indicators related to quality assurance.

Today, the policy of the University in the field of quality assessment corresponds to the University objectives, purposes and status, and includes the obligation to constantly improve the processes and QMS while taking into account the requirements and wishes of the stakeholders.

### ***Analytical part***

According to the information provided in the self-assessment report, RSHU has a quality assurance policy that provides the basis for the development and analysis of quality goals. Quality goals should be consistent with the quality assurance policy and commitment to continuous improvement of all processes defined at the University. The quality assurance policy includes the obligations of the University administration to comply with the QMS (quality management System), established requirements for continuous improvement and improvement of the QMS efficiency. The University's quality assurance policy provides sufficient conditions for the development and analysis of quality goals. In order to present the implemented policy to the staff of RSMU, students and all interested persons provide all documents (an approved copy of the document), which are discussed by the staff and posted on the University's website in the public domain.

There is a general understanding in the University that ensuring high quality in the educational process is a matter of vital importance, but the University management has not defined a clear internal policy that would include structured processes to ensure quality. The EEC notes that the self-report did not fully describe the uniqueness and advantages of the EP submitted to international accreditation. In the course of reviewing the self-assessment Report and in the course of interviews with various departments, it was found that the management of the EP does not adequately identify the risks that the implemented EP may be exposed to. Knowledge of the risks could serve as a basis for developing a "risk-based approach" and taking measures to counter them. The Commission notes the insufficient effectiveness of popularizing the uniqueness of this educational program at the Federal level, since during the interviewing of the faculty that implements this program, the main emphasis was placed on the practical orientation of the EP, while the methodological and multilingual components were practically not reflected in the conversations and self-assessment Report.

Experts note insufficient interaction of stakeholders involved in the implementation of the EP. External stakeholders have little influence on the quality assurance process, so a clear quality assurance strategy should be developed using risk analysis as a starting point. During the analysis of the self-assessment Report, in the course of interviews with the management of the EP, heads of structural divisions, real evidence of the implementation and analysis of innovative proposals was not presented. The results of the interview show that the influence of various stakeholders in the quality assurance system is minimal. There are also problems in the transfer of skills due to the teaching methods used, which could potentially be revised so that the courses taught can be recognized at the international level. The Commission draws the attention of EP heads to the fact that the results of training should be clear and reflect the skills of the graduate in practice. For example, the self-assessment report mentions this; GC-2 "to be able to communicate effectively orally and in writing in their native and foreign languages", which in fact is not fully realized as a result of training.

***Strengths of EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- Annual adjustment of programs of apprenticeship and themes of final qualification works in the part of individual tasks for students for target practical training and scientific research topics that are in demand at the request of potential employers and state Executive authorities.
- Periodic involvement of stakeholders (administration, teachers, students, graduates and representatives of professional communities) in determining the goals and strategies of educational programs.
- The possibility of experience exchange and international cooperation with other educational institutions.

***EEC guidelines for EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- Develop an internal regulatory document (local act) on the basis of which risks will be identified, their forecast will be carried out, and the implementation of the educational program development plan will be adjusted.
- Develop a plan to attract employers, students and teaching staff to the formation of a road map for the development of EP in the context of multi-level training: "bachelor – master –postgraduate».
- Develop and regularly conduct a survey of students' satisfaction with the quality of education at the end of each term in each discipline. Analysis of satisfaction surveys related

to all disciplines taught by each professor, specialty, or year of study will provide valuable information for identifying weaknesses and developing corrective measures.

***EEC's conclusions on Standard 1. QUALITY ASSURANCE POLICY:***

According to Appendix 1. Assessment chart «conclusions of the external experts commission» EEC states «**improvement implied**» position.

**6.2. Standard 2 PROGRAMME DEVELOPMENT AND APPROVAL**

**Standard:**

*Institutions should have processes for the design and approval of their programmes. The programmes should be designed so that they meet the objectives set for them, including the intended learning outcomes. The qualification resulting from a programme should be clearly specified and communicated, and refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.*

**Guidelines:**

*Study programmes are at the core of the higher education institutions' teaching mission. They provide students with both academic knowledge and skills including those that are transferable, which may influence their personal development and may be applied in their future careers.*

*Programmes*

- *are designed with overall programme objectives that are in line with the institutional strategy and have explicit intended learning outcomes;*
- *are designed by involving students and other stakeholders in the work;*
- *benefit from external expertise and reference points;*
- *reflect the four purposes of higher education of the Council of Europe (cf. Scope and Concepts);*
- *are designed so that they enable smooth student progression;*
- *define the expected student workload, e.g. in ECTS;*
- *include well-structured apprenticeship placement opportunities where appropriate;*
- *are subject to a formal institutional approval process.*

**The evidence part**

Accredited EP is consistent with the mission of the University and the relevant requests of employers. The planning of the educational process is represented by the structure of interrelated documents (the main educational program, working curricula, individual curricula of students) and a set of different types of educational and methodological documentation. The curriculum provides elective courses of disciplines, the University's website contains annotations to work programs, determined the qualification of the graduate-bachelor.

EEC members have found educational program has a specialization (profile) (further – specialization), which characterizes its orientation to specific areas of knowledge and (or) activities and determines its subject-thematic content, the prevailing types of educational activities and requirements to the results of its acquisition. The educational program is a set of documents, which is updated taking into account the development of science, culture, economy, technology, technology and social sphere.

EEC has found that in accordance with the QMS-OND-27/17 Procedure of Implementation of Educational Activities for Higher Education Programs of FSBEI HE “RSHU” - Bachelor, Specialist, Master the developers of educational programs are the departments of Institutes/Faculties of the University, where these new educational programs are to be implemented.

To develop the basic educational program, a working group is appointed from among the teachers of the producing Department whose work is coordinated by the head

of the educational program. The head of the educational program in 35.03.08 Aquatic Bioresources and Aquaculture is S.V. Korolkova, Associate Professor of the Department of Aquatic Bioresources, Aquaculture and Hydrochemistry, PhD.

EEC has found that EP determines expected learning outcomes of educational program acquisition – competence-based model of a graduate that considers the requirements of the FSES HE . it also determines the learning outcomes of each apprenticeship or discipline programme that provide achievement of overall goals of EP.

While developing a design of a graduate, the opinion of employers and modern labor market needs are taken into account. As the result of educational program acquisition general cultural and professional competences must be formed.

EEC has found that to the development and implementation of educational programs 35.03.08 Aquatic Bioresources and Aquaculture the managers and employees of organizations whose activity is connected with the profile of the program executed with higher education profile educational programs, academic degree (desirable), work experience in relevant organizations from 5 years implementing a systematic scientific work on the profile of the educational program, namely, adviser to the first Deputy Director of the Federal state budgetary scientific institution "Russian Research Institute of Fisheries and Oceanography", PhD in geographical Sciences, senior researcher A. P. Pedchenko; adviser to the Director of the North-Western branch of the Federal state budgetary institution "Main Basin Management for Fisheries and Conservation of Aquatic Biological Resources" N. V. Popov; chief specialist of LLC "Company Acquaintorio", PhD in biological Sciences, V. V. Kovalev.

Polling of the academic staff has shown that the involvement of the academic staff in the process of making managerial and strategic decisions: fully satisfied and partially satisfied-15.0% and 55.0%, respectively, answered "not satisfied" - 20.0%. The results of the survey of students: more than 61% say that they are completely satisfied with the overall quality of the curriculum, 56.2 % of students claim that they are fully satisfied with teaching methods in general.

EEC has found that EP overall volume is 240 credits, which does not depend on the education form, the educational technologies used, individual curriculum is available. The share of contact work from the total workload of a student for full-time training at EP 35.03.08 Water bioresources and aquaculture is 47.5%. For correspondence learning, the share of contact work is at least 9.5%.

At RSHU the system of credits assumes the netting of credits, as well as their accumulation. The student will be able to study at other, mainly foreign universities, for quite long periods bringing back academic credits, which RSHU takes into account and uses when making a decision when issuing a qualification certificate.

The credit unit that determines the amount of work of the student and the teacher is the academic hour, the duration of which is determined to be 45 minutes, 1 credit unit is equal to 36 academic hours.

EEC has found that at RSHU the student has the opportunity to accumulate credits:

- according to the main educational program implemented at the University, having successfully passed the mid-term assessment;
- with the help of online courses on the platforms "open education"," Russia "Coursera", whose certificates indicate the successful mid-term assessment of the student and are accepted by the University;
- for academic mobility programs with successful mid-term assessment of a student in another University and accepted by RSHU;
- when transferring from another University, the mastered credits can also be re-credited by the assessment Commission of RSMU;
- when receiving a second higher education, RGGMU also re-credits previously

mastered credits for the relevant disciplines and modules.

The Commission on the basis of conversations, meetings, and interviews with Vice-rectors in areas of activity, deans and heads of departments, heads and employees of structural divisions, faculty, students, graduates and employers, notes the distribution of job responsibilities of staff and differentiation of functions of collegial bodies involved in the implementation of the EP.

### ***Analytical Part***

The results of studying the documentation, meetings, interviews and interviews have shown that the University does not implement co-education, although there are prerequisites for this. There is experience in starting such work on master's programs. Also, the University has not demonstrated the presence of the process of innovation management, analysis and implementation of innovative proposals.

On the basis of interviews with different groups, it can be concluded that there is not always transparency in the development plan of the EP submitted to accreditation.

The experts were convinced of the consistency of the University's strategic goals, the adequacy of the mission, vision, strategy to the available resources: financial, information, material and technical base.

The mechanisms of formation, revision, monitoring and implementation of the development plan of EP are available. However, experts have revealed that transparency and awareness of the processes of formation EP on the part of employers it is not always ensured; measuring satisfaction of the needs of faculty, staff and students is not always provided.

For the EP submitted to accreditation the mechanism (or procedure) of selection of interested persons for participation in formation of the plan of development of the educational program is defined.

Students have the right to choose the place of apprenticeship, including pre-graduate apprenticeship, and can also offer the topic of their research final qualifying work.

EEC was not provided with results of external expertise of the EP submitted to accreditation to the full extent, their number was insufficient, and the contents were of a declarative character. Despite the presence of permanent foreign relations, the international educational component is not sufficiently developed in the EP, there are no joint educational modules of accredited programs. This reserve should be used more actively. The Commission also notes that it is necessary to work systematically with prospective employers, organizations and practices in order to update the content of the EP more dynamically. This will also strengthen the practical orientation of the EP.

The results of interviews and meetings with employees of Ecological Department RSHU on EP "05.03.06 Ecology and Environmental Management" showed that the introduction of e-administration procedures would allow to achieve higher levels of efficiency, allowing the teaching staff to focus on their teaching and research activities, rather than on administrative work.

According to the results of interviewing, familiarization with various documentation, material and technical base and information and methodological resources of the University and departments, questionnaires of students and faculty, EEC of NAAR notes the following:

- the material and technical base of EP support needs improving, as there is a need for modernization of laboratory equipment in the specialized laboratories;
- it is necessary to strengthen the work to improve the level of research on EP;
- there is a lack of disciplines taught in English; the need to implement multilingual, dual education and double-degree education;
- insufficient relationship between the University and stakeholders.

***Strengths of EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- The unique features of the EP submitted to accreditation that differentiate it from other programs implemented in the region are shown.
- The University has demonstrated the distribution of functional and job responsibilities of staff and collegial bodies involved in the implementation of the EP, including program design, management, monitoring and improvement.
- The curriculum of the program 05.03.06 Ecology and Environmental Management meets the Bologna criteria of the student's workload (theory-practice-personal work).

***EEC guidelines for EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- To create a working group to study the experience of developing educational programs (modules) of partner universities with the subsequent integration of the acquired knowledge in the development plans of the EP.
- To intensify the work on attracting stakeholders to work on determining the impact of disciplines and professional apprenticeships on the formation of learning outcomes.
- Involve students in the development of EP and monitor their quality.

***Additional guidelines for EP 05.03.05 Applied Hydrometeorology:***

- for EP 05.03.05 Applied Hydrometeorology, profile «Applied Oceanology» strengthen the link between the activities of the apprenticeship base and the individual educational trajectory of the student when concluding contracts for professional apprenticeship.

***EEC's conclusions on Standard 2 PROGRAMME DEVELOPMENT AND APPROVAL:***

According to Appendix 1. Assessment chart «conclusions of the external experts commission» EEC states «**satisfactory**» position.

**6.3. Standard 3. STUDENT-CENTRED LEARNING AND PERFORMANCE ASSESSMENT**

**Standard:**

*Institutions should ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach.*

**Guidelines:**

*Student-centred learning and teaching plays an important role in stimulating students' motivation, self-reflection and engagement in the learning process. This means careful consideration of the design and delivery of study programmes and the assessment of outcomes.*

*The implementation of student-centred learning and teaching*

- respects and attends to the diversity of students and their needs, enabling flexible learning paths;
- considers and uses different modes of delivery, where appropriate;
- flexibly uses a variety of pedagogical methods;
- regularly evaluates and adjusts the modes of delivery and pedagogical methods;
- encourages a sense of autonomy in the learner, while ensuring adequate guidance and support from the teacher;
- promotes mutual respect within the learner-teacher relationship;
- has appropriate procedures for dealing with students' complaints.

*Considering the importance of assessment for the students' progression and their future careers, quality assurance processes for assessment take into account the following:*

- Assessors are familiar with existing testing and examination methods and receive support in developing their own skills in this field;
- The criteria for and method of assessment as well as criteria for marking are published

*in advance;*

- *The assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. Students are given feedback, which, if necessary, is linked to advice on the learning process;*
- *Where possible, assessment is carried out by more than one examiner;*
- *The regulations for assessment take into account mitigating circumstances;*
- *Assessment is consistent, fairly applied to all students and carried out in accordance with the stated procedures;*
- *A formal procedure for student appeals is in place.*

### ***The evidence part***

EEC has found that the first stage in student-centered training is conducting a number of adaptation activities with first-year students: the team-building quest "Storming Hydromet", the questionnaire "I Can, I have skills in, I want", the organization of interactive platforms at the "New-comers day" (special celebration party for first-year students), the presentation of groups of first-year students. As a result, the basic characteristics of students groups and individual students are determined in relation to their level of training, social status, creative, athletic abilities, their expectations of studying at the University. In the future, the educational process, socio-economic and moral support of students, the provision of flexible learning paths are carried out taking into account the data obtained, which are adjusted as the student develops.

The Commission notes that the provision of equal opportunities for students is achieved by the completeness of the educational-methodical, organizational-methodical and information support of the educational process; the principle of gender equality operates; there is equal access to educational, research, extra-class activities. The content of educational programmes and conditions of education for the disabled are determined by including in accordance with individual rehabilitation program of disabled person (if any) for students with disabilities on the basis of educational programs, adapted if necessary for training these persons.

QMS-OND-32/18 Regulations on the Ongoing Monitoring of Academic Performance and Students Interim Assessment in Higher Education Programs - Bachelor, Specialist, Master, CMK-OHD-18/18, QMS-OND-18/18 Regulations on Final State Certification of Students of Higher Education Educational Programs – Bachelor, Specialist, Master determine and regulate the mechanism for assessing the knowledge, skills and professional competencies of students, including students with disabilities, which include procedures for ongoing control, mid-term assessment and final state certification.

EEC has found that the student at RSHU has the right to form an individual curriculum that determines their individual training path. The student's assistant in the selection of the training path is the mentor who, if necessary, gives advice on the choice of elective and optional subjects of the educational program for the students in accordance with QMS-OND41/16 Procedure of Mastering Elective and Optional Subjects (modules) mastering within implementation of the basic educational programs of higher education (with Amendments to Order № 475 of 19.07.2018). There are possibilities for the students to have quick exchange of information with domestic and foreign educational institutions, enterprises and companies, access to the modern professional databases, information references and search engines which are available on the Internet according to the educational program.

There is a system of internal testing of residual knowledge of students that uses the electronic information and educational environment of the University. The results of internal testing are communicated to teachers and students at the meetings of the Teaching and Methodical Council, Councils of Institutes and Faculties, Joint of

Students' Council. Test results in the past academic year (subject, group, result, turnout) for 35.03.08 Aquatic Bioresources and Aquaculture are as follows: Genetics and Selection, ABR-B15-1, 79%, 64%. Hydrobiology, ABR-B15-1, 89%, 61%. Theory of evolution, ABR-B16-1, 86%, 100%.

In order to attract students to research activities, to participate in RSHU scientific investigation, Student Scientific Society (SSS) is arranged and working at the university. The work of SSS is aimed at increasing scientific activity and professional growth of students. SSS represents the interests of students in scientific (research) organizations and associations of various levels, provides them with the methodological and organizational support in the publication of research works' results. SSS operates on the basis of the Regulations on the student scientific society of RSHU.

Over the past five years, the students of the University actively participated in research work. 35.03.08 Aquatic Bioresources and Aquaculture: participation at the international level – 1, all-Russian – 3, regional – 20; intra-University – 2; publication in higher assessment commission's journals – 2; receiving the Prize or Diploma of the winner – 1.

EEC has found that Monitoring of the effectiveness and efficiency of innovations and the use of active teaching methods is carried out through discussions at departments' meetings, and via students' progress analysis. Training and Methodological Council of the University (TMC) summarizes the best international and domestic experience, as well as the best practices of methodological work of the departments of this University and other educational institutions and promotes their implementation into the educational process. At meetings of the TMC, the analysis of the activities of departments of the University to ensure the quality of the educational process is held. The TMC members consider the ways of improvement of methodological support for autonomous work of students, development of rational forms of planning, organization, implementation and control. The Chairman of the TMC is the first Vice-rector of the University I.I. Palkin. Current issues of the organizational and educational work are discussed at the weekly meetings of Directors of the Institutes, Deans of Faculties, teaching management department, management of additional education, admission and employment of students and center for quality and regulatory support of educational process with the first Vice-rector of the University.

It has been revealed that Feedback system and evaluation of learning outcomes is carried out by conducting the survey of the students and teaching staff in their personal accounts on the website of RSHU. Systematic work on feedback is conducted at meetings of departments, councils of institutes and schools, and rector's office. The University has an effective information system: the website of RSHU (<http://www.rshu.ru/>), web-page for the university applicants (<http://dovus.rshu.ru/content/priemkom/abit2019>), history page (<http://www.rshu.ru/university/history/>) and University events page, electronic library, student forum, etc.

Based on the analysis of the 2018/2019 academic year results of the survey (feedback) on implementation of student-centered learning in the EP, the change in teaching methodology was provided: there is a shift with the emphasis on self-guided activities and reflection, and increasing personal responsibility for learning results.

Teachers use their own teaching materials, which allow them to adapt the content of subject syllabi and apprenticeship syllabi to the specific features of EP. For example, associate professor Gustoev D.V. has developed "Manual for users of software package "statistical and probabilistic forecasting of hydrometeorological elements" which is used in

the course "Theory of oceanic processes forecasts". Eremina T.R, Voloschuk E.V., Khaimina O.V. have issued "Ecosystems modelling. Workbook". Korol'kova S.V. has designed "Self-guided Learning and Classroom Work Manual for Students of EP Aquatic Bioresources and Aquaculture (profile "Aquatic Bioresources Management and Aquaculture")". Alekseev D.K., Gal'tsova V.V., Dmitriev V.V. are the authors of "Ecological monitoring: current state, approaches, methods". Grishankov A.V., Stepanova A.B. have compiled "Overview of freshwater zooplankton of the North-West of Russia". Furthermore, RSHU teachers have published a number of works in the English language. To mention a few: Ershova A., Alexeev D., Shilin M., Bagrova T. (2019) Design of Study Programs on Sustainable Development. In: Leal Filho W. (eds) Encyclopedia of Sustainability in Higher Education. Springer, Cham; Ershova A., Eremina T., Shilin M., Khaimina O. (2019) Research-Based Teaching Methods for Sustainable Development. In: Leal Filho W. (eds) Encyclopedia of Sustainability in Higher Education. Springer, Cham.

The University should expand and develop research areas in the field of author's technologies, new methods of teaching disciplines within the framework of the EP.

Rshmu in the interests of students conducts an appeal procedure for violation of the final certification procedure and (or) disagreement with the results of the state exam. The procedure for filing and conducting appeals is regulated by QMS-OND-18/18 Regulations on Final State Certification of Students of Higher Education Educational Programs – Bachelor, Specialist, Master.

It is found that any student has the right to submit a written request or ask a written question both in person and to the e-mail address of the Dean's office / Directorate or rector's office, specified on the website of RSHU. Requests are considered by the administration on an individual basis with a mandatory written response.

Every semester, RSHU holds meetings, including on the organization of training, with the rector, representatives of the rector's office and the University administration with the joint Council of students - the representative body of all students of the University.

### ***Analytical Part***

At RSHU if a student has academic debts, he has the opportunity to undergo additional training in disciplines and courses in their free time from the development of the main program and additionally take a mid-term exams or tests, which is possible 2 times a year. Regulations on the procedure for planning and calculating the working time of teaching staff assigned to the academic staff (Order of 27.06.2018 No. 432 SMK-OND-19/18).

Additional training of the student is conducted by the teacher according to the schedule of consultation hours, which is compiled twice a year and is placed on the information board of the Department and Faculty / Institute. Additional training for the student is free of charge.

Remuneration of a teacher for conducting additional classes with a student is regulated by: "Regulations on the procedure for assigning incentive payments for high professionalism and quality of work performed, depending on the specific results of educational services provided to employees of the faculty of RSHU»[http://www.rshu.ru/sveden/document/Effect\\_contract\\_2018.pdf](http://www.rshu.ru/sveden/document/Effect_contract_2018.pdf); Regulations on the procedure for planning and calculating the working time of teaching staff assigned to the academic staff [http://www.rshu.ru/sveden/document/smk-ond-19\\_18.pdf](http://www.rshu.ru/sveden/document/smk-ond-19_18.pdf).

In general, both students and faculty expressed positive opinions about the implementation of the accredited baccalaureate EP. The Commission notes the need to develop and implement new in-house research on the teaching methodology in order to develop student-centered learning. EP management provides transparency and accessibility to the assessment results, opportunity to evaluate the professional qualities of

faculty, as well as the level of material and technical support of educational process. However, most students do not know enough about their capabilities of choosing an individual trajectory, as well as choosing a teacher, scientific supervisors for their final certification work. There is an insufficient number of scientific publications of students.

The survey has revealed that the teacher objectively assesses the achievements of students and fully agree with this 34.2%, agree - 47.9 %, partially agree - 16.4 %. It has been found that 57.5% of students fully agree with the statement that the constant assessment reflects the content of the course, while 27.4 and 13.7% - show consent and partial consent.

At the University, the exam and test are usually conducted by one teacher.

It is noted that 98.6% are fully or partially satisfied with the quality of teaching.

***Strengths of EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- The "Valaam" training and research station provides students with an excellent opportunity to perform field work and conduct research in the field. This is one of the main achievements of RSHU in the field of education and research.

- Additional training for the student is free of charge.

- In the interests of students, there is an appeal procedure for violation of the final certification procedure and (or) disagreement with the results of the state exam.

***EEC guidelines for EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- Stimulate the activities of the Student Scientific Society to increase the number of scientific publications as a tool to improve the effectiveness of research activities of students.

- To develop and expand the directions of scientific research of the faculty in the field of preparation of author's technologies, various forms and new methods of teaching disciplines within the framework of the EP.

***Additional guidelines for EP 05.03.05 Applied Hydrometeorology:***

- for EP 05.03.05 Applied Hydrometeorology, profile «Applied Oceanology» it is recommended that online discussion forums and other training activities be introduced into the training process.

***EEC's conclusions on Standard 3. STUDENT-CENTRED LEARNING AND PERFORMANCE ASSESSMENT:***

According to Appendix 1. Assessment chart «conclusions of the external experts commission» EEC states «**satisfactory**» position.

**6.4. Standard 4. STUDENT ADMISSION, PROGRESSION, RECOGNITION AND CERTIFICATION**

**Standard:**

*Institutions should consistently apply pre-defined and published regulations covering all phases of the student "life cycle", e.g. student admission, progression, recognition and certification.*

**Guidelines:**

*Providing conditions and support that are necessary for students to make progress in their academic career is*

*in the best interest of the individual students, programmes, institutions and systems. It is vital to have fit-for-purpose admission, recognition and completion procedures, particularly when students are mobile within and across higher education systems.*

*It is important that access policies, admission processes and criteria are implemented consistently and in a transparent manner. Induction to the institution and the programme is provided. Institutions need to put in place both processes and tools to collect, monitor and act on information on student progression.*

*Fair recognition of higher education qualifications, periods of study and prior learning, including the recognition of non-formal and informal learning, are essential components for ensuring the students' progress in their studies, while promoting mobility. Appropriate*

*recognition procedures rely on • institutional practice for recognition being in line with the principles of the Lisbon Recognition Convention;*

*• cooperation with other institutions, quality assurance agencies and the national ENIC/NARIC centre with a view to ensuring coherent recognition across the country.*

*Graduation represents the culmination of the students' period of study. Students need to receive documentation explaining the qualification gained, including achieved learning outcomes and the context, level, content and status of the studies that were pursued and successfully completed.*

### **The Evidence Part**

EEC has found that Department of Additional Education, Admission and Alumni Employment (DAEAAE) is responsible for accepting applicants for the 1st year of education. The rules regarding admission to RSHU can be found on the university website ([http://dovus.rshu.ru/content/\\_priemkom/abit2019](http://dovus.rshu.ru/content/_priemkom/abit2019)). They are updated every year on the 1st of October. The rules regulate the admission of the citizens of the Russian Federation, foreign students, and stateless persons to get education according to higher education programs at the university. The rules regarding admission is on the website of RSHU including the information on the places financed from the Federal budget and the quota of persons with special rights and the quota of admission to targeted training students, as well as the places providing education on the tuition fee- based. The documents required for admission are to be provided in various ways.

There is the information for applicants about the procedure for admission to RSHU on the university website.

Recognition in the Russian Federation of the education and (or) qualifications received in a foreign state is carried out according to the Federal Law of 29.12.2012 No. 273 –FL "On Education in the Russian Federation". In the Article 107, part 1, 273-FL the recognition of foreign education is carried out in accordance with the international treaties of the Russian Federation, which regulate the recognition and establishment of equivalence of foreign education, and with Russian Federation legislation.

The University in accordance with the current legislation does not cooperate on the nostrification of education documents with national centers or other educational organizations.

Foreign citizens and stateless persons have the right to the higher education at the expense of budget allocations in accordance with international treaties of the Russian Federation, Federal laws or through quotas for the education of foreign citizens and stateless persons established by the government of the Russian Federation, as well as at the expense of individuals and legal entities in accordance with the agreements on the provision of paid educational services.

Admission results for accredited educational programs (full – time/correspondence form): 35.03.08 Aquatic Bioresources and Aquaculture: 2015 – 18/0 people; 2016 – 13/0 people; 2017 - 0/0 people; 2018 – 19/19 people; 2019-19/17 people.

At the educational program 35.03.08 Aquatic Bioresources and Aquaculture, in 2017 the admission was not carried out due to the lack of budget places, the admission to

correspondence form of training has been on since 2018.

At the educational program 35.03.08 Aquatic Bioresources and Aquaculture there have been 43 (+2019 год) students.

University graduates receive nationally recognized diplomas. These standard forms of documents of education were approved by Order of the Ministry of Education of the Russian Federation of 01.10.2013 № 1100 "On the Approval of the Templates and Descriptions of Documents on Higher Education and Qualifications and Transcripts to them."

Department of Additional Education, Admission and Alumni Employment accompanies the process of students' transfer and readmission, regulated by the QMS-OND-09/18 Regulations of the Transfer and Readmission of Students, developed in accordance with the procedure established by the Ministry of Education and Science of Russia. The Number of vacant places for admission (transfer) published on the website of RSHU: <http://www.rshu.ru/sveden/vacant/>.

The mechanism for the students' results recognition, including those studied in the course of the academic mobility, as well as the results of additional, formal and informal learning is adopted as policy by QMS-OND -39/17 Regulations on Acceptance of the Results of Studying Subjects (Modules), Internships Used in Organizations Engaged in Educational.

Commission notes that Since 2019, diagnostic testing of the first-year students has been introduced, which will further assess the subsequent progress of students. The database of Moodle tests system is being enhanced.

Each educational program provides students with an opportunity to take on optional (non-compulsory) subjects and elective subjects.

At the University the quality control of students' educational program acquisition is carried out in the form of ongoing control, mid-term assessment and final state certification.

In accordance with the QMS-OND-32/18 Regulations on the Ongoing Monitoring of Academic Performance and Students Interim Assessment in Higher Education Programs - Bachelor, Specialist, Master, the students are monitored for academic performance during the semester by the teachers by means of assessing the implementation of control events done by the students in accordance with the requirements of the syllabi and assessment tools. The Regulations establish the frequency and procedure for conducting ongoing monitoring of students' performance and interim assessment of the students, including a system for evaluating its results, as well as the procedure for students to eliminate academic debts. According to the academic schedule, ongoing monitoring is carried out for various subjects in order to obtain the student's performance cut according to the results of the current control. In the case of non-certification, the student is given an opportunity to liquidate the current debts before the beginning of mid-term assessment period.

Mid-term assessment of students provides the assessment of the intermediate and final studying results of subjects (modules) and internship (including the course works results). The purpose of students' mid-term assessment includes a comprehensive and objective assessment of the quality of students' theoretical knowledge, the ability to synthesize knowledge acquired and apply it to practical problems solving during the studying within the educational program. Interim assessment takes place twice a year in accordance with the academic schedule during the winter and summer examination sessions. In case of receiving unsatisfactory results, the student is given two opportunities to pass the exam and/or tests to the commission during 1 year after.

It has been found that Final state certification completes the process of internal assessment of the quality of studying. The procedure of the organization and carrying out the state final certification of the students finishing the development of the educational program, the procedure of making and considering appeals is

regulated by QMS-OND-18/18 Regulations on the Final State Certification of the Student Trained in Higher Education Programs - Bachelor, Specialist, Master.

An agreement with the research Institute for monitoring the quality of education to conduct independent testing of students of the University is planned.

### ***Analytical Part***

The Commission supposes that information on the rules of admission and enrollment of applicants to RSHU is available in the public domain and published on the official website of the organization.

Recognition in the Russian Federation of education and (or) qualifications obtained in a foreign country is carried out on the basis of the Federal law of 29.12.2012 No. 273-FL "On Education in the Russian Federation".

Foreign citizens and stateless persons have the right to the higher education at the expense of budget allocations in accordance with international treaties of the Russian Federation, Federal laws or through quotas for the education of foreign citizens and stateless persons established by the government of the Russian Federation, as well as at the expense of individuals and legal entities in accordance with the agreements on the provision of paid educational services.

It was also found that the results of admission to the accredited educational program 35.03.08 Aquatic Bioresources and Aquaculture in general have not shown dynamics of increase over the past two years.

Graduates of the University receive diplomas of completion established by the Ministry of education and science of the Russian Federation sample. The Association of graduates of LGMI-RSHU is represented in social networks, and practically does not update information about its activities on the official website of the University.

The Commission has noted the lack of information on issues related to the career development of graduates, as well as the need to improve the organization of work with employers. The Commission testifies to the formality in the work of the Association of University Graduates in the educational process and the lack of information about the work of this body on the website.

The Commission found that the number of vacant places for admission (transfer) is posted on the official website of RSMU at the link [http: //www .rshu.ru/sveden/vacant/](http://www.rshu.ru/sveden/vacant/)

The Commission notes that there is no methodology for the harmonization of evaluation criteria, which can be applied in all disciplines of EP, following the Bologna standards.

Quality control of students ' development according to the accredited educational program 35.03.08 Aquatic Bioresources and Aquaculture is carried out in the form of ongoing control of progress, mid-term assessment and final state certification, but the rating of students is not formed.

The Commission has found that the University is not actively involved in various educational programs of international exchange, there is no network training scheme, there is no agreement with the research Institute for monitoring the quality of education to conduct independent testing of students of the University.

### ***Strengths of EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- Openness of information about the rules of admission and enrollment of applicants, transfer from course to course, availability of vacant budget places.

- For the EP "05.03.06 Ecology and nature management": within the framework of the EP, events are held with international partner universities. Partner universities in the Environmental program: University of Cadiz (Spain), University of Jena named after F.

Schiller (Germany), University of Poitiers (France), Jagiellonian University (Poland), University of South Bohemia (Czech Republic).

***EEC guidelines for EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- Create a Commission and develop a methodology for the harmonization of criteria for evaluating educational achievements of students, applicable to all disciplines of the EP, following the Bologna standards.

- To recommend that the Association of graduates of LGMI-RSHU systematically update information about their activities on the University's website.

- In monitoring procedures to strengthen the implementation of the mechanism of effective "post-graduate support" of students related to employment and career development of graduates, organization of work with employers.

***Additional guidelines for EP 05.03.05 Applied Hydrometeorology:***

- ensure that the credits of the subjects included in EP are recognized in accordance with the principles of the Lisbon Convention, which will help to improve the performance in accordance with international standards.

***EEC's conclusions on Standard 4. STUDENT ADMISSION, PROGRESSION, RECOGNITION AND CERTIFICATION:***

According to Appendix 1. Assessment chart «conclusions of the external experts commission» EEC states «**improvement implied**» position.

**6.5. Standard 5. ACADEMIC STAFF**

**Standard:**

*Institutions should assure themselves of the competence of their teachers. They should apply fair and transparent processes for the recruitment and development of the staff.*

**Guidelines:**

*The teacher's role is essential in creating a high quality student experience and enabling acquisition of knowledge, competences and skills. The diversifying student population and stronger focus on learning outcomes require student-centred learning and teaching and the role of the teacher is, therefore, also changing (cf. Standard 1.3).*

*Higher education institutions have primary responsibility for the quality of their staff and for providing them with a supportive environment that allows them to carry out their work effectively.*

*Such an environment*

- sets up and follows clear, transparent and fair processes for staff recruitment and conditions of employment that recognise the importance of teaching;*
- offers opportunities for and promotes the professional development of teaching staff;*
- encourages scholarly activity to strengthen the link between education and research;*
- encourages innovation in teaching methods and the use of new technologies.*

***The Evidence Part***

EEC has found that RSHU staffing policy is reflected in the Collective Contract, QMS-OND-91/16 Regulations on the Procedure of Succession of Academic Staff, QMS-OND-93/16 Regulations on the Procedure of Academic Staff Certification, QMS-OND-34/17 the Regulations on Procedure of Electing Deans in the Russian State Hydrometeorological University, QMS-OND-35/17 Regulations on Procedure of Electing Heads of Departments in the Russian State Hydrometeorological University, QMS-OND -26/18 Regulations on the Title of Honorary Professor in the Russian State Hydrometeorological University etc. All the documents are available on the web-site of the University

[\(http://www.rshu.ru/sveden/document/\)](http://www.rshu.ru/sveden/document/).

The order of calculation and planning of academic staff working hours, including the relation between all kinds of teaching work (teacher-student contact hours: lectures, seminars, mid-term assessment, consultations, etc.) research work, methodological and organizational work, extra-class social activities, is regulated by QMS-OND- 19/18 Regulations on the Order of calculation and planning of academic staff working hours.

All the educational programs implemented in RSHU are provided the experienced academic staff. The lecturers have university degree in a related subject area and/or professional training in compliance with the scientific field of study; also all the lecturers regularly have further training in accordance with the requirements of the Ministry of Science and Higher Education of the Russian Federation. The level of competence of lecturers conforms to the requirement of the professional standard 01.004 "Teacher in the System of Professional Training, Professional Education and Further Professional Education" (levels 7 and 8 of European Qualification Framework depending on the position), which is included in the national qualification system.

EEC has noted that the share of scientific-pedagogical staff (figured to integer overflow of academic position), having education related to the taught subject (module), in the total number of scientific-pedagogical staff implementing educational program is not less than 70%: 05.03.05 Applied Hydrometeorology – 84,7%, 05.03.06 Ecology and Environmental Management – 92,7%, 35.03.08 Aquatic Bioresources and Aquaculture – 86,3%. The share of scientific-pedagogical staff (figured to integer overflow of the academic position), having Ph.D. (including Ph.D. obtained abroad and recognized in the Russian Federation) and/or the academic title (including academic title obtained abroad and recognized in the Russian Federation), in the total number of scientific-pedagogical staff implementing educational program is not less than 70%: 05.03.05 Applied Hydrometeorology– 85,4%, 05.03.06 Ecology and Environmental Management– 73,2%, 35.03.08 Aquatic Bioresources and Aquaculture– 71,4%. The share of staff (figured to integer overflow of the academic position) in the total number of heads and employees of companies the activity of which is connected with the specialty (profile) of the implemented educational program (having appropriate professional experience of not less than 3 years) in the total number of staff implementing educational program is not less than 10%. These employees are leading specialists in their subject areas and they are involved in teaching specialized professional courses that are included in the EP under international accreditation. The criteria for selecting of this category of specialists are university degree in a related subject area, teaching experience, and experience of work in related professional sphere minimum 3 years.

EEC has found that at RSHU scientific projects are regularly carried out with the involvement of University teachers on the basis of the Institute of Geocological Engineering of RSSU.

In order to implement the scientific achievements and developments of the University scientists, a regular set of publications is carried out in the journal "Scientific notes of RSHU" under the guidance of the chief editor, doctor of science, Professor V. N. Malinin, reviewed by the VAC, and currently being prepared for indexing in Scopus.

The average annual amount of research funding per scientific and pedagogical employee (in the rates reduced to integer values) of the organization implementing the main educational program in the 2018/2019 academic year for each accredited educational program is 270.70 thousand rubles.

EEC has found that every three years teachers undergo training: 2015 - 271 persons, 2016 - 95 persons, 2017 - 108 persons, 2018 - 599 people since the beginning of 2019 - 48 people. In 2018 Effective contract has been introduced for the teaching staff, which takes

into account all the achievements of the teacher for the previous reporting period: academic and scientific work, publications, professional development.

Due to the peculiarity of accredited educational programs (training of highly qualified personnel in the field of environmental management in the Russian Arctic), teaching on accredited educational programs is provided by Russian teaching staff using a wide range of Russian-language teaching materials, software and Internet sources. Only subjects related to the study of one's own foreign language are taught in a foreign language.

### ***Analytical Part***

The University has published a personnel policy reflected in several regulations and in the Collective agreement.

The procedure for planning and calculating the working time of teachers of RSHU, including the harmonic ratio of educational (all types of contact work: classes of lecture and seminar types, intermediate certification, consultations, etc.), scientific, creative, methodological, organizational, educational work and other types of work.

The Commission notes that the academic staff has a common understanding of the need to increase the overall funding of the educational process and reduce the amount of administrative work in of teachers.

The results of the survey show that in general, students are satisfied with the quality of teachers, but they expect that they will have more opportunities to stimulate students and their creative thinking.

A survey of teaching staff showed that staff mobility is relatively low in terms of staff training, ongoing professional development, and long-term career planning in academia. Twenty percent of employees are dissatisfied with the availability of the necessary scientific and educational library for teaching staff, since most of these resources are in a foreign language. This problem can be solved by mobility and improving teachers' communication skills in other languages.

The Commission notes that it is necessary to increase the share of teachers who speak foreign languages in order to expand academic mobility and increase the number of international projects, increase the activity of scientific activities, and rejuvenate the scientific and pedagogical staff.

### ***Strengths of EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- Personnel policy is reflected in several regulations and in the Collective agreement.
- The teaching staff fully meets the requirements of the legislation of the Russian Federation.
- For the EP "05.03.06 Ecology and nature management": the professors are highly qualified and motivated. They are ready to participate in academic mobility programs and international research projects.

### ***EEC guidelines for EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- Academic mobility of teaching staff should be carried out on a systematic basis.
- To create conditions for attracting to the teaching of practitioners and employers.
- To link the level of competence of teachers defined in the University with the professional standard, the industry framework and the European qualifications framework (EQF).

### ***EEC's conclusions on Standard 5 ACADEMIC STAFF:***

According to Appendix 1. Assessment chart «conclusions of the external experts

commission» EEC states «**satisfactory**» position.

### **6.6. Standard 6. LEARNING RESOURCES AND STUDENT SUPPORT SYSTEM**

**Standard:**

*Institutions should have appropriate funding for learning and teaching activities and ensure that adequate and readily accessible learning resources and student support are provided.*

**Guidelines:**

*For a good higher education experience, institutions provide a range of resources to assist student learning. These vary from physical resources such as libraries, study facilities and IT infrastructure to human support in the form of tutors, counsellors and other advisers. The role of support services is of particular importance in facilitating the mobility of students within and across higher education systems.*

*The needs of a diverse student population (such as mature, part-time, employed and international students as well as students with disabilities), and the shift towards student-centred learning and flexible modes of learning and teaching, are taken into account when allocating, planning and providing the learning resources and student support.*

*Support activities and facilities may be organised in a variety of ways depending on the institutional context. However, the internal quality assurance ensures that all resources are fit for purpose, accessible, and that students are informed about the services available to them.*

*In delivering support services the role of support and administrative staff is crucial therefore they need to be qualified and have opportunities to develop their competences.*

#### ***The Evidence Part***

EEC has found availability of material and technical support for all educational programs submitted to accreditation.

The University has the necessary material resources to achieve the set goal and to solve the following tasks: educational, scientific, socio-cultural and sport-sanitary. The total area of the University premises is 57045 sq. m. The area of training and laboratory premises is 27237sq.m.including the area of indoor sport facilities of 891sq.m. The area of scientific and research premises is 845 sq.m. The network of informational and communicational equipment is widely developed in the University.

All the buildings of the RSHU including its own bases to hold internship are connected in one communication network. Optical fiber channels of communication provide rapid and trouble-free access to all the resources at a speed of up to 1Gbit/s. A part of working stations operates in the domain under the guidance of two Windows Server 2003R2 controllers. Modern controllable active network communication enables to unite customers from different buildings of the University in working groups. The total number of logged in working stations is: 1 078 (without considering wireless customers and training classrooms). The average volume of consumed internet traffic per month is about 3Tbite (3 000 Gbite).

At the University different special programming means for the educational and scientific processes aimed at various groups of students such as computer-based training programs on specific subjects and topics, program packages for different field of studying, computer-based testing programs, e-versions of references, encyclopedias, dictionaries as well as teaching and learning aids, e-library systems, special programming aids for scientific research, electronic law and reference systems, electronic document management system etc. are actively used.

EEC has found that the University has own library of the total area of 789,93 sq.m., including the library of Building № 1 (98, Malookhtinsky Pr.) - 385,53 sq.m., the library of Building № 2 (3, Metallistov Pr.) - 141,4 sq.m., the library of Building № 4 (11, Ryzhsky Pr.) - 263 sq.m. There are two reading rooms in two campuses where 150 seats are provided,

including 23 seats equipped with PCs. In the premises of the reading rooms there are terminals connected to the National E-Library providing access to e-copies with limited copyright from the funds of the Russian National Library and other federal libraries of Russia. Books with no copyright are accessible for reading in the University network as well as remotely.

EEC has revealed that the library holding comes complete with printed and electronic textbooks, teaching aids, scientific official, and reference, specialized national and foreign periodicals on all the programs, courses and subjects of the University. The volume of the library holding on physical (material) carriers is 390 922 pieces, including textbooks - 242 629 pieces, scientific publications - 87 833 pieces, literary and art publications - 14 634 pieces. The library annually obtains about 3 000 pieces on physical (material) carriers. The library receives about 80 pieces of newspapers and journals on subscription.

For the period from 01.01.2016 to 01.09.2019 the library obtained publications on physical (material) carriers: in 2016 - 3347 pieces, in 2017 - 3022 pieces, in 2018 - 4046 pieces, in 2019 - 570 pieces.

In order to develop and implement alternative educational technologies, since 2007 the operations on implementing module object-oriented distant education system with MOODLE open programming code into the educational process of RSHU have been carried out. Implementation of web-technologies in the educational process takes place on the basis of outsourcing and acquiring licensed versions, as well as the use of webinar platforms. The departments of the University in cooperation with the Specialized Center of New Informational Technologies (SCNIT) develop e-teaching materials containing lectures and automatic tests, e.g. webcasts of lectures of leading specialists in hydrometeorology, text files for holding Russian Olympiads for Students on science and technology etc.

RSHU video library holding is supplied with a vast number of materials on science and technology and contains about 140 pieces.

Great attention is paid to the awareness of the students and lecturers via web-site of the University and libraries (<http://lib.rshu.ru/>). The web-site of the library performs informational and educational functions. On the web-site up-to-date information on all the scientific and educational resources provided to students and employees of the University is placed. The head of Information and Bibliography Department communicates actively with users on-line by means of social networks, informs about all library events and answers questions.

Constant operation on the development and implementation of different information resources in RSHU activity is carried out. Main directions of these developments are as follows:

- Web-portal of RSHU ([www.rshu.ru](http://www.rshu.ru)) - the main information resource of the University, it is constantly updated and actualized. All the official information on RSHU activities, educational and scientific activities, structure of the University, departments section and the section of scientific laboratories, news etc. is provided. The site fully complies with the requirements of regulating documents on the structure and content of the official site of an educational organization of the Russian Federation.

- The portal of the Department of Additional Education, Admission and Employment of Students ([dovus.rshu.ru](http://dovus.rshu.ru)). This resource provides and updates information for the RSHU applicants, students, and post-graduates. Another aim of this resource is to provide information on vacancies to employ specialists in the RSHU study areas.

- The Server of Remote Testing ([quest.rshu.ru](http://quest.rshu.ru)). The resource has been developed and used to hold Olympiads remotely for applicants and students in the main RSHU subjects.

- The site of meteorological forecasts ([weather.rshu.ru](http://weather.rshu.ru)). The site has been developed to provide scientific and educational activities of RSHU in the sphere of meteorological forecasting. It contains different types of forecasts which are constantly updated by RSHU

lecturers and students.

- The website for the RSHU applicants ([abit.rshu.ru](http://abit.rshu.ru)). The website has been developed for automatic filling in applications, automatic loading data to the University system in order to facilitate the work of admission committee.

- The internal Web-portal of the educational organization on the basis of which the personal accounts of lecturers and students were arranged. The internal Web-portal complies with the requirements of Electronic informational and educational environment, such as:

- fixing the process of education, progress and results of the main educational program acquiring;

- forming electronic portfolio of students including storage of projects, reviews and assessments for these projects by any participant of the educational process;

- interaction of participants of the educational process, including synchronous and (or) asynchronous interaction by means of Internet.

EEC has found that currently the University management system is being replaced with the new and more perspective automatized management system on the basis of 1C: University PROF, including automatization of conducting the admission campaign, curriculum composition, distribution of educational loads, holding examination periods and estimation of its results, storage of personal information as well as results of education of students, electronic documentation management of orders and information of the number of students.

Social support is provided for the students (<http://www.rshu.ru/university/education/social/>). Students of certain categories (orphans, children deprived of parental care, children receiving pension for the loss of a breadwinner) are provided with free transport passes. Other students are provided with subsidized transport passes. Scholarship is provided in accordance with Regulations on the Scholarship for Students QMS-OND-07/17, material support for students is provided in accordance with Regulations on the Provision of Material Support for Students.

Tutorship plays important role in the University. Tutorship in groups is carried out by the departments. The groups being provided with tutorships are regulated by the Rector's order.

The tutoring department in cooperation with the groups arranges and controls studying, social and cultural life in groups contributing to formation of friendly groups for the purpose of preparing comprehensively educated professionals obtaining higher education. The activity of departments with the tutored groups is one of the main indicators of pedagogical work of the departments.

To assist tutors of groups, student-tutors are assigned from among undergraduates in accordance with QMS-OND-88/16 Regulations on a Student-Tutor of a Group.

Due to the steady growth of the number of foreign students, a lot of attention is paid to consideration of ethnic and ethnic factors. RSHU students from other countries are rendered assistance in adaptation to new language environment connected with overcoming language barrier and psychological stress. Excursions to familiarize with Saint-Petersburg sightseeing are arranged. All this contributes more comfortable feeling of foreign students in the environment of new unknown city. For foreign students taking a Russian language course the lecturers of the Department of the Russian Language and Pre-University Training have developed the special course "Socio-Psychological Adaptation of Foreign Students". In RSHU pedagogical work with foreign students is performed in close contact with the Association of Foreign Students of Saint-Petersburg. The results of survey among the students showed the necessity to conduct such adaptation courses aimed at decreasing stress of foreign students in new sociocultural environment.

For RSHU students the work of sport clubs on football, volleyball, basketball, sambo,

judo, kendo, swimming, table tennis, cheerleading is arranged. RSHU sport teams participate in the championships of universities in 33 kinds of sports, such as: judo, sambo, water polo, football etc. Among the students of sport clubs there are 4 masters of sports and 22 candidates of masters. Annually students become winners and prizewinners in such sports as freestyle wrestling, Thai boxing, boxing, kickboxing, judo, sambo, belt wrestling and others.

During vacation, RSHU students can spend time in sport and health camp on the practice base in Daimische, where different competitions in football, volleyball, combination relay, table tennis, skiing are arranged. In summer recreational travelling to the Black sea coast is organized.

The recreational activity and medical service of the students are the main purposes of the University on providing favorable conditions for study, work and leisure in the framework of the educational process. For the purpose of provision of medical service in Building №1 (17, Stakhanovtsev St., Saint-Petersburg) medicine office is equipped with all the necessary facilities.

Social and living conditions of students comply with all the necessary requirements. The University has 5 campuses with total capacity of up to 2190 people that allows providing with accommodation all the students who need it including the students who study on a commercial basis. All the accommodations are equipped with the access monitoring system using video cameras. Internet access is also arranged there. In the University there are for canteens in campuses and accommodations the summer canteen is arranged on the bases of practice.

In order to arrange and maintain sport and recreational activity the University has gyms in studying buildings and dormitories.

In the structure of the necessary financial resources the expenditures for modernization and equipping scientific and research laboratories, creation of the scientific-educational infrastructure, development of applied research, provision of high-quality educational process, creation of modern information and communication infrastructure, implementation of advanced training programs for personnel are prevailing. The strategy of development of the University is the basis for creation of the effective system of social support of students, lectures and employees aimed at complying with their requirements. The programs for healthy way of life formation, tolerance as well as religious tolerance development, scientific lookout, corruption rejection have been implemented.

The premises are the studying classrooms for conducting lectures, seminars, performing research, group and individual consultations, progress monitoring and mid-term assessment as well as premises for self-education and premises for storage and maintenance of the equipment for educational purposes. The premises are equipped with specialized furniture and technical means of education to provide information to big auditorium. All the premises conform to the current fire-fighting rules and regulations and provide conduction of all kinds of classes, practical, scientific and research works of students in accordance with the curriculum.

The premises for self-education of the students are equipped with computers with Internet access as well as access to electronic information and education environment of the University.

In order to arrange practice on acquiring primary professional skills and experience there are specialized classes, laboratories and training areas.

EEC has found that when conducting work-based practice the contracts with lead organizations and enterprises are signed. If internship requires leaving the region, travelling, accommodation and living expenses are remunerated for a student in accordance with QMS-OND-28/18 Regulations on Internship of the Students Mastering Higher Education Programs - Bachelor, Specialist, Master, Post-Graduate, QMS-OND-97/16

Regulations on Remuneration of Travelling and Other Expenses when Conducting Traineeship in FSBEI HE «RSHU» and Regulations on Rendering Financial Support to RSHU Students CMK-ОНД-87/16.

The library provides each student of the University with individual unlimited access to training materials of the following electronic and library systems (ELS) from any point that has access to the Internet.

All information on available electronic and library systems and conditions of access can be received in the section "Electronic and Library Systems" on the website of library.

CMK-ОНД-32/16 Положение о выпускной квалификационной работе (ВКР) устанавливает QMS-OND-32/16 Regulations on Graduation Qualification Work (GQW) establishes the requirements for GQW, the procedure for its implementation and the evaluation criteria with one of which is the check in the Antiplagiat system.

The university meets all fire safety, sanitary and epidemiological standards for educational organizations. There is sanitary and epidemiologic assessment No. 78.01.05.000.M.002121.08.16 of 15.08.2016 and the conclusion about compliance of the subject for protection by mandatory requirements of fire safety No. 39-2-3-16 of 01.03.2017. Each educational program includes obligatory subject "Health and Safety". Before internship, a meeting is held with the students to discuss all organizational issues related to the practice.

The commission members confirm that since 2017 the University has introduced an electronic information and education environment (EIEE). The purpose of EIEE operation is to provide the possibility of remote interactive access to information and educational resources of the University, creation of a unified educational space and information openness of the University on the basis of modern information technologies.

Contact work can be carried out in EIEE. Each student has the EIEE personal account, login and password from which the students receive in directorate of the institute/dean's office. Access to personal account is posted on the website of the University. Training courses are placed on the basis of the modular object-oriented dynamic training MOODLE environment with the built-in subsystem of testing. Represents free (extending according to the license GNU GPL) the web application giving an opportunity to create the websites for online training.

As feedback actively use social networks are: JSC page ([https://vk.com/studsovet\\_rshu](https://vk.com/studsovet_rshu)), page of material support by the student of Materialochk (<https://vk.com/club169543358>), cultural and leisure club "Bravo" (<https://vk.com/kdkbravo>), "Theatrical Gidromet" (<https://vk.com/hydromettheatre>), Association of Foreign Students of Russia, St. Petersburg branch (<https://vk.com/spbais>), bus excursions of RSHU (<https://vk.com/rshutours>), etc.

In order to strengthen the material and technical base, an auction is currently being held for the purchase of computer equipment worth more than 6 million rubles. This year, one residential building and three cameras were reconstructed on the premises of internship in the village of Daimishe.

At the end of each year departments and laboratories compile a list of equipment and materials that are to be purchased, replaced or repaired and upgraded. These items are taken into account when RSHU Financial Plan is developed, which forms the registry of all expenses for the upcoming year. These needs are also reflected in departments' and faculties' annual working plans. Annual stocktaking allows to analyze and forecast all needs of the University structural units.

The annual inventory of property allows you to analyze and predict the needs of training units.

Regular questioning of students and teachers about satisfaction with the conditions of the educational process allows us to identify the degree of provision of the educational

program with material and technical and information resources.

### ***Analytical part***

The Commission notes that there is sufficient material and technical support for all accredited educational programs.

According to the results of an Anonymous survey of students, students are quite satisfied with the resources provided by RSHU.

However, the Commission notes that it is necessary to ensure that computer equipment is properly updated and maintained. In addition, the University must ensure proper maintenance of laboratory equipment and the purchase of reagents.

A visit to the University showed that there are enough classrooms, laboratories, computers and software for all students. However, during an interview with the professors of the Ecological Department, it was found that additional financial resources are needed to improve equipment.

At the end of each year, departments and laboratories draw up a list of equipment and materials to be purchased, replaced, or repaired and upgraded. These items are taken into account when developing the financial plan of the RSHU, which forms a register of all expenses for the coming year. These requirements are also reflected in the annual work plans of departments and faculties. The annual inventory allows you to analyze and forecast all the needs of the structural divisions of the University.

The self-assessment Report recognized that at the moment two residential buildings, ten cells, a canteen building, a clubhouse, and a sports field need to be reconstructed on the territory of the internship.

For the EP "05.03.05 Applied Hydrometeorology", the faculty and staff expressed the wish to have their own vessel at the University for the practice of students of hydrologists and oceanologists.

The Commission notes the need to systematically implement a set of measures to improve the conditions of adaptation of students with disabilities.

As a result of the interview, it was revealed that the students are clearly not satisfied with the opportunities of RSHU to organize sports and other leisure activities.

### ***Strengths of EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- Availability of material and technical support for all educational programs submitted to accreditation.

- RSHU is working on the development and application of various information resources: improving the web portal of RSHU; improving the portal of the Department of Additional Education, Admission and Employment of Students; improving the site of meteorological forecasts (weather.rshu.ru). The Site was created to provide scientific and educational activities of RSHU in the field of meteorological forecasting and contains various types of forecasts, which are constantly updated by teachers and students of RSHU.

### ***EEC guidelines for EP 05.03.06 Ecology and Environmental Management:***

- for EP 05.03.06 Ecology and Environmental Management: create an electronic database (repository) with online access to documentation for all students of EP, where you can get all the information on educational materials, scientific publications, theses, environmental legislation.

### ***EEC guidelines for EP 05.03.05 Applied Hydrometeorology:***

- for EP 05.03.05 Applied Hydrometeorology:

- Improve the mechanism for ensuring copyright compliance when placing

educational and methodological material in the public domain;

- Provide support for the course on GIS technologies with modern software tools of an applied nature.

***EEC's conclusions on Standard 6. LEARNING RESOURCES AND STUDENT SUPPORT SYSTEM:***

According to Appendix 1. Assessment chart «conclusions of the external experts commission» EEC states «**satisfactory**» position.

**6.7. Standard 7. INFORMATION MANAGEMENT**

**Standard:**

*Institutions should ensure that they collect, analyse and use relevant information for the effective management of their programmes and other activities.*

**Guidelines:**

*Reliable data is crucial for informed decision-making and for knowing what is working well and what needs attention. Effective processes to collect and analyse information about study programmes and other activities feed into the internal quality assurance system.*

*The information gathered depends, to some extent, on the type and mission of the institution. The following are of interest:*

- *Key performance indicators;*
- *Profile of the student population;*
- *Student progression, success and drop-out rates;*
- *Students' satisfaction with their programmes;*
- *Learning resources and student support available;*
- *Career paths of graduates.*

*Various methods of collecting information may be used. It is important that students and staff are involved in providing and analysing information and planning follow-up activities.*

***The Evidence Part***

EEC has found that now the planned transition from the automated control system for higher education institution to the new automated control system (ACS) "1C University" in connection with changes of requirements in the field of the higher education and updating of FSES of HE is conducted. All information about students is uploaded in the system: personal data, data on progress, curriculum, schedule, list of orders, etc.

Being a part of the education quality management system, the internal education quality assessment system of RSHU is aimed at ensuring the management of prompt, objective and reliable information on the educational system state and development, as well as the development of educational processes, accompanying and supporting processes, and data on compliance of interim assessment and final results with the target settings and regulatory requirements. It forms an inextricable integrity with the external evaluation system, as it is focused on maximizing the quality of education and finding reserves to increase it.

Internal quality control of students' training is provided in accordance with the QMS-OND-23/18 Regulation on the Internal System of Independent Assessment of the Quality of Education.

The University's internal independent assessment of the quality of education has a three-tiered hierarchical structure.

At the University, internal assessment of the quality of education is continuous, systematic, so it is more appropriate to talk about monitoring the quality of education.

Thus, a monitoring system is used to monitor students' academic performance, which includes ongoing, interim and final monitoring. Methods of ongoing, interim and final control by disciplines are established in assessment tools descriptions by subjects.

The objectivity of the procedure for assessing the quality of training on the main educational programs implemented at the University is ensured by the use of assessment tools developed by the departments for the ongoing and interim monitoring of student performance, state final certification of graduates.

Повышение эффективности и обеспечение мониторинга трудоустройства  
Increasing efficiency and ensuring monitoring of employment of graduates, carrying out vocational guidance work, including development and distribution of vocational guidance products - all these issues are under the responsibility of the Department of additional education, admission and employment of students (DAEAES). The University's website provides information on proposed vacancies (<http://www.rshu.ru/university/education/work>) and employment of graduates (<http://www.rshu.ru/sveden/grants>). Every year, institutes and faculties assist in the employment of graduates by holding graduate meetings, within this meeting a survey of satisfaction with the education received (<http://dovus.rshu.ru/content/cszm/graduate>) is conducted. Issues of competence of teaching staff, quality of educational work (organization of training sessions, results of interim assessment, final state certification) are regularly considered at meetings of the University's Training and Methodological Council, Academic Councils of faculties/institutes, meetings of departments.

As part of an external quality assessment, each educational program is reviewed by employers. Students carry out research works at the request of employers.

The evaluation of educational and methodical support for educational programs is carried out by means of an automated workplace of "Knigoobespechennost (book endowment)" of a system of automation of IRBIS libraries 64. The automated workplace of "Knigoobespechennost (book endowment)" allows to display all options of correlations between the subjects, students and educational literature from base of the directory for the current semester, to display coefficients of a knigoobespechennost for both the separate book, and any set of books (on the subject, field of study, faculty/institute, etc.).

As part of the evaluation of the efficiency and effectiveness of its activities, every year the University carries out Monitoring and self-assessment procedure. The self-assessment report is posted on the website of RSHU, the results of monitoring are sent to the Ministry of Education and Science of the Russian Federation.

In order to improve the quality of educational programs RSHU constantly polls the students, the academic staff, and representatives of enterprises. The polling results are considered at weekly meetings with deans, directors and heads of EPs, at department meetings, Faculty Academic Councils, academic and methodological commissions, meetings with students and parents.

Information about educational programs is available at RSHU site, and publications RSHU's for school-leavers. It is constantly renewed. Information is actively communicated by the Department of Additional Education, Admission and Alumni Employment. The mission of the Department is to promote RSHU, create a positive image of RSHU and positioning RSHU as a competitive institution in the world system of higher education, which possesses cutting edge scientific technologies and capable of training highly qualified specialists.

The second but not less important function of RSHU management is assisting students graduates with employment. The main objectives in this area are the following:

- searching for vacancies;
- CV writing assisting, job search recommendations;
- holding training seminars, etc.;

- presentations of companies and organizations;
- graduates employment rate analysis.

Many of our graduates have successful careers, take high positions in state and commercial institutions.

Our students' and teachers' achievements are covered at the news page at (<http://rshu.ru>), in videos about different events in the life of the University. All these pieces are placed at RSHU Internet site and in YouTube. In 2019 the overall number of views of such materials exceeded 30000.

### ***Analytical part***

The internal system of education quality assessment RSHU, aimed at providing operational management, objective and accurate information on the status and development of the educational system, educational process, he reviews and ensures conformity to intermediate and outcome goals and regulatory requirements. It forms an indissoluble integrity with the external evaluation system, as it is focused on maximum quality assurance of education and search for reserves for its improvement.

Internal independent assessment of the quality of education at the University has a three-level hierarchical structure. At the University, the internal assessment of the quality of education is continuous, systematic and systematic, so it is more appropriate to talk about monitoring the quality of education. Thus, in order to monitor the progress of students, a control system is used, which includes ongoing, mid-term assessment and final state certification. Methods of ongoing, mid-term assessment and final state certification are established in the funds of assessment tools. However, during the visit, the University did not fully demonstrate EEC, how based on the analysis and evaluation of control indicators, preventive and corrective measures are developed, as well as the methods for assessment of their effectiveness.

EEC notes that in order to implement the policy and strategy in the field of quality, the University provides access to all teachers, employees and students to the necessary information resources for work and training.

The Commission considers that in order to ensure the prompt preparation of documents, it is necessary to introduce an automated document management system. It is also necessary to: work out and implement a system of copyright protection when publishing materials of teachers in the public domain; update the English version of the University website, improve the mechanism for monitoring the professional trajectory of the graduate.

The Commission supposes that the information system on EP 05.03.06 "Ecology and Environmental Management" and RSHU as a whole has a significant potential for long-term development. The results of the student survey show that students are only partially satisfied with the way the course programs are presented. In addition, they expect more up-to-date materials on the content of the courses and more effective methods of teaching them.

The Commission notes that a good opportunity to improve the exchange of information between students would be to create an electronic database for undergraduate, graduate and postgraduate students to periodically obtain information about the proposed work and its potential relationship to the bachelor's degree. This platform can be integrated into the RSHU web page and will promote the development of relations between students and graduates with the same interests in the academic environment.

The Commission believes that the University staff needs proper training to effectively use the information system, which can be added new submodules to make it more effective in the future.

***Strengths of EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- As part of the evaluation of the effectiveness and efficiency of its activities, the University conducts Monitoring and self-examination procedure every year.
- The University has a good structure of internal independent assessment of the quality of education.

***EEC guidelines for EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- Create an electronic database for undergraduates, undergraduates and postgraduates to periodically obtain information about the proposed research work and its potential connection with the bachelor's degree.
- Consider the widespread use of Sakai and Moodle information resources for effective management of educational programs.

***EEC's conclusions on Standard 7 INFORMATION MANAGEMENT:***

According to Appendix 1. Assessment chart «conclusions of the external experts commission» EEC states « **improvement implied** » position.

**6.8. Standard 8. PUBLIC INFORMATION**

**Standard:**

*Institutions should publish information about their activities, including programmes, which is clear, accurate, objective, up-to date and readily accessible.*

**Guidelines:**

*Information on institutions' activities is useful for prospective and current students as well as for graduates, other stakeholders and the public.*

*Therefore, institutions provide information about their activities, including the programmes they offer and the selection criteria for them, the intended learning outcomes of these programmes, the qualifications they award, the teaching, learning and assessment procedures used, the pass rates and the learning opportunities available to their students as well as graduate employment information.*

***The Evidence Part***

EEC has found that information about educational programs is available at RSHU official Internet Site ([www.rshu.ru](http://www.rshu.ru)).

In compliance with Resolution of RF Government of 10.07.2013 № 582 (editions of Resolutions of RF Government of 20.10.2015 № 1120, of 17.05.2017 № 575, of 07.08.2017 № 944, of 29.11.2018 № 1439, of 21.03.2019 № 292) " On Approval of the Rules of Placement and Updating of the Information on the Educational Organization on the Official Website of the Educational Organization in the Information and Telecommunication Network "The Internet"," and Order of "Rosobrnadzor" of 29.05.2014 № 785 (edition of Order of "Rosobrnadzor" of 02.02.2016 № 134, of 27.11.2017 № 1968, of 14.05.2019 № 631) "On Requirements to the structure of the official Site of an Educational Institution in Information and Telecommunication Network "Internet" and the Format of Information Layout" on the website of the University (<http://www.rshu.ru/sveden/>), the following information about the educational organization is posted:

- Basic Information (name, date of creation, legal address, contact details, founder, availability of branch);
- Structure and management bodies of the educational organization;
- Documents (RSHU Charter, License to carry out educational activities (with

appendices),

- State Accreditation Certificate (with appendices), Social and Professional Accreditation Certificates, etc.);

- Education (information on educational programs implemented at the University; documents regulating the educational process; Number of students; Information on the results of admission, transfer, restoration and payment; areas of research and its results);

- Educational standards according to which training is implemented at the University;

- Pedagogical (scientific and pedagogical) composition (<http://www.rshu.ru/sveden/employees/>);

- Material and technical support and equipment for the educational process (information on the availability of equipped training rooms and facilities for practical classes, on the availability of libraries, on the availability of sports facilities, on the conditions of nutrition and health protection of students, on access to information systems and information and telecommunication networks, information for people with disabilities, a list of electronic educational resources);

- Scholarships and other types of material support (information on the procedure of appointment and payment of scholarships, provision of material assistance to students, university regulatory documents, orders);

- Fee-based educational services (information on the procedure for providing paid educational services);

- Combating corruption;

- Financial and economic activities (financial and economic activity plan for 2019-2021, etc.);

- Vacant places for admission (transition) (information on the procedure of admission (transition) in the RSHU and on vacant places for admission (transition));

- The current semester academic schedule for students (<http://www.rshu.ru/university/stud/>).

EEC is certain that In addition to posting information on its website, the University informs the public about the results of its activities, plans and innovations during open days, participation in educational exhibitions, through media, etc. Congresses, symposiums, fairs and conferences held in cooperation with potential employers allows all the parties to interact and communicate effectively. These events allows to evaluate all stakeholders' satisfaction with information provided by RSHU.

It has been noted that information from employers on the availability of vacant places for employment of specialists in the areas of training of RSHU is available on the portal of the Department of Additional Education, Admission and Employment of Students (<http://dovus.rshu.ru>).

### ***Analytical part***

The analysis of the content of the University's website allowed us to establish that there is no transparency of information on complaints for consumers on the University's website; there is no information on interaction with scientific / consulting organizations and educational organizations that implement such educational programs; there is no transparency of information on complaints. The results of the University's activities and in the context of the EP are not fully reflected, there are no audited financial reports. Also, the personal pages of the academic staff with the indication of disciplines taught have not been finalized in order to create conditions for transparency of information on complaints for consumers. There are no external publications (citations, links) on the implementation of the accredited program, as well as information on the results of external evaluation

procedures on the University's website.

The Commission supposes that in order to strengthen public awareness activities, it is necessary to improve the marketing policy of the University, publish a new website, timely update information on information stands in the premises of RSMU, return to a permanent basis the participation of leading employees in media projects (headings, participation in television broadcasts, etc.), improve the effectiveness of the feedback channel "graduates-University", hold Olympiads and conferences for schoolchildren at the regional and Federal levels.

***Strengths of EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- Information about the University's educational programs is published on the official website of RSHU in the Internet.

- For the educational program 05.03.06 "Ecology and Environmental Management" - in addition to posting information on its website, the University informs the public about the results of its activities, plans and innovations in open days, participation in educational exhibitions, in the media, etc. Congresses, symposiums, fairs and conferences held in cooperation with potential employers allow all parties to effectively interact and cooperate. These activities allow us to assess the satisfaction of all stakeholders with the information provided by the RSHU.

***EEC guidelines for EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- Place on the official website of the University full information about the faculty, researchers, providing the activities of accredited EP in the context of specialties.

- On the website of the University to provide access to information about the interaction with scientific / consulting organizations and educational organizations that implement such projects.

***Additional EEC guidelines for EP 05.03.05 Applied Hydrometeorology:***

- detailed information about all courses and modules should be available online on the University's website, and staff should periodically update the course content to make the course attractive to students.

***EEC's conclusions on Standard 8 PUBLIC INFORMATION:***

According to Appendix 1. Assessment chart «conclusions of the external experts commission» EEC states «**satisfactory**» position.

***6.9. Standard 9 ON-GOING MONITORING AND PERIODIC REVIEW OF PROGRAMMES***

**Standard:**

*Institutions should monitor and periodically review their programmes to ensure that they achieve the objectives set for them and respond to the needs of students and society. These reviews should lead to continuous improvement of the programme. Any action planned or taken as a result should be communicated to all those concerned.*

**Guidelines:**

*Regular monitoring, review and revision of study programmes aim to ensure that the provision remains appropriate and to create a supportive and effective learning environment for students.*

*They include the evaluation of:*

- *The content of the programme in the light of the latest research in the given discipline thus ensuring that the programme is up to date;*
- *The changing needs of society;*
- *The students' workload, progression and completion;*

- *The effectiveness of procedures for assessment of students;*
- *The student expectations, needs and satisfaction in relation to the programme;*
- *The learning environment and support services and their fitness for purpose for the programme.*

*Programmes are reviewed and revised regularly involving students and other stakeholders. The information collected is analysed and the programme is adapted to ensure that it is up-to-date.*

*Revised programme specifications are published.*

### ***The Evidence Part***

EEC has found that in response to the development of science, culture, economy, technologies and social sphere as well as the updating of the federal state educational standards, changing employer's demands, labor market and in accordance with QMS-OND-36/18 "Procedure of Development, Approval and Execution of Educational Programs of Higher Education in RSHU" ([http://www.rshu.ru/sveden/document/smk-ond-36\\_188.pdf](http://www.rshu.ru/sveden/document/smk-ond-36_188.pdf)) educational programs are updated annually by stakeholders (employers, students, teachers) and readopted by the Academic Council of the University with regard to syllabi, assessment tools, and methodical materials, etc.

Members of the Commission are certain that all accredited EP have reviews from employers.

The Commission notes that in order to take into account the views of students on the management of the educational organization and when the educational organization adopts local regulations affecting the rights and legitimate interests of students at the University, United Students' Council operates. United Students' Council is a collegial body of student self-government of the University. The Chairman of the USC is a member of the Academic Council of the University, and takes part in the meetings of the rectorate. In addition, the USC oversees the issue of social and material support for students.

Representatives of students are members of the scholarship commissions of institutes, faculties and Universities.

The achievement of the goals of the EP is monitored throughout the training period.

The members of the Commission note that the assessment tools are presented in the form of competence-oriented assessment tools funds (ATF) developed by the departments for the ongoing control of students, mid-term assessment and final state certification. ATFs of ongoing control are used for rapid assessment and continuous management of educational activities of students. ATFs for mid-term assessment of students on discipline (module), apprenticeship are designed to assess the degree of achievement of planned learning outcomes upon completion of the discipline (module), apprenticeship in the established curriculum form: test, differentiated test, exam. ATFs for the final state certification are intended for establishment the degree of conformity of the formed competences of graduates to requirements of state higher education standard for the corresponding direction of preparation (specialty). ATFs for allows to assess the degree of competence formation in the educational program.

Monitoring of satisfaction with the quality of the apprenticeship organization and its results is carried out through the report on the apprenticeship, at the final conferences. Production apprenticeship are conducted at specialized enterprises, which allows the student to immerse himself in the upcoming professional activity for some time.

Satisfaction of the needs of students and society can be traced in improving the quality of applicants-increasing the average exam score of applicants in the field of training 35.03.08 Aquatic Bioresources and Aquaculture: 2017-60.04; 2018-65.4; 2019-69.93.

Personal development of the student in the process of mastering the program is monitored in the framework of ongoing control of students, mid-term assessment, testing of residual knowledge, filling the portfolio.

### ***Analytical part***

The Commission established that every year educational programs are reviewed with the participation of stakeholders (employers, students, teachers) and re-approved by the Academic Council of the University in terms of working programs of disciplines, Fund of evaluation funds, methodological materials, etc.

It is noted that in order to take into account the views of students on the management of an educational organization and when an educational organization adopts local regulations that affect the rights and legitimate interests of students at the University, the United Students' Council (USC) operates.

The Commission found that the assessment tools funds are presented in the form of competence-oriented assessment tools funds developed by the departments (ATF) ongoing control of students, mid-term assessment and final state certification. ATF allows to assess the degree of competence formation in the educational program.

The Commission notes that in order to take into account the views of students on the management of the educational organization and when the educational organization adopts local regulations affecting the rights and legitimate interests of students at the University, United Students' Council operates.

Personal development of the student in the process of mastering the program is monitored in the framework of ongoing control of students, mid-term assessment, testing of residual knowledge, filling the portfolio.

The Commission supposes that one of the main obstacles to continuous monitoring and evaluation of programmes is the limited participation of teaching staff in the management and strategic decision-making process. According to the survey results, 50% of employees are not satisfied with management strategic decisions. Another key problem of teaching is that the level of stimulation and involvement of young professionals in the educational process is very limited.

Based on the results of the study of the self-assessment report and the results of the site visit, the Commission notes the following areas of further improvement: it is necessary to develop a questionnaire for employers, involving feedback on the quality of training of graduates; development of a mechanism for more active involvement of students in the quality assurance procedures of educational programs; improvement of the mechanism that helps to take into account the views of all stakeholders in the annual analysis and revision of curricula and programs of academic disciplines and practices for implemented educational programs; increasing the effectiveness of feedback from University graduates. In order to work more closely with employers, it is necessary to continue working on the creation of basic departments that will provide practice-oriented professional training of students.

The Commission draws attention to the need to inform and publish the results of the revision of the content and structure of educational programs in the context of changes in the market, the requirements of employers, social demands of society on a permanent basis.

### ***Strengths of EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- the management of the EP provided a review of the content and structure of the EP, taking into account changes in the labor market, the requirements of employers and the social request of society.

- for the EP "05.03.05 Applied Hydrometeorology": the documents of the Department confirm the participation of students, employers and other stakeholders in the revision of the EP;

- for EP 05.03.06 "Ecology and Environmental Management": the main mission of the USC at RSHU is to take into account the views of students about the University management and regulations of the University regarding the rights and legitimate interests of students. USC is a collegial body of the University's student administration. The Chairman of the USC is a member of the Academic Council of RSMU, takes part in the meetings of the rector. In addition, USC oversees the issues of social and financial support for students. Representatives of students are members of the scholarship committees of schools and institutes of RSHU. Meeting the needs of students is reflected in the growth of the average score of final examinations of school graduates: 05.03.06. Ecology and Environmental Management: 2017 - 57,2; 2018 - 63,27; 2019 year-73.33.

***EEC guidelines for EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- Systematize criteria for evaluating educational achievements of students in all types of work.

- To ensure the completeness of the information field of the site in accordance with the requirements of openness and accessibility of information for persons interested in the development of educational programs.

***Additional EEC guidelines for EP 05.03.05 Applied Hydrometeorology:***

- All disciplines of EP "05.03.05" Applied Hydrometeorology", profile "Applied Oceanology " should be periodically checked and revised with subsequent correction taking into account the feedback received from surveys of students, employees, other interested parties, including funding bodies and external evaluation bodies.

***EEC's conclusions on Standard 9 ON-GOING MONITORING AND PERIODIC REVIEW OF PROGRAMMES:***

According to Appendix 1. Assessment chart «conclusions of the external experts commission» EEC states «**satisfactory**» position.

**6.10. Standard 10. CYCLICAL EXTERNAL QUALITY ASSURANCE**

**Standard:**

*Institutions should undergo external quality assurance in line with the ESG on a cyclical basis.*

**Guidelines:**

*External quality assurance in its various forms can verify the effectiveness of institutions' internal quality assurance, act as a catalyst for improvement and offer the institution new perspectives. It will also provide information to assure the institution and the public of the quality of the institution's activities.*

***The Evidence Part***

EEC has found that In realization of EP there are several mechanisms of functioning of the quality management system, such as: monitoring and reviewing of EPs; maintaining the teaching staff competence; conducting self-assessment procedures according to the agreed criteria; the system of external assessment of the quality of EP implementation; recording and analyzing of employers' and graduates' opinions; arranging student and teacher mobility programs with foreign partners, etc.

The external assessment of the EP realization quality is manifested through the following procedures: State accreditation (every 6 years).

Professional Public Accreditation (held by an educational institution application).

Independent education quality assessment (by a voluntary initiative of the educational process participants).

In 2018 Professional Public Accreditation expertise was conducted in RSHU as a part of a voluntary certification system «Arctic» ROSS RU.I1731.04ARKO. Professional Public Accreditation Certificates were granted to all the Educational Programs that had applied for accreditation (<http://www.rshu.ru/sveden/document>)

In the period from November 26 - December 25, 2018 the state accreditation expertise was conducted in RSHU. It resulted in establishing the conformity of the content and quality of student training at the university to the state educational standards. The State Accreditation certificate was obtained on December 26, 2018; the register number 2971 series 90A01 № 0003116 (valid until December, 26, 2024) As a result, the accreditation commission produced a conclusion statement specifying that all Educational Programs at RSHU meet the requirements of The Federal State Educational Standards (FSES) of Higher Education (HE) for the areas of professional training, with no negative remarks. RSHU was granted with Accreditation certificate of December 26, 2018, registration number 2971, series 90A01 № 0003116 (valid until December 26, 2024).

EEC members are certain that Since 2014 the Federal Internet Examination for Bachelors (FIEB) has been conducted as voluntary graduate certification, comparing their level of training with the requirements of FSES HE. The relevance of the project is due to changes in the Federal Law «On Education in the Russian Federation», which was complemented by Article 95.1 (put into effect 21.07.2014 г. N 256-FZ): «The independent assessment of the quality of student training is conducted at the initiative of stakeholders with the purpose of collecting information about the level of students acquisition of EPs and it aims at providing stakeholders with the information on quality of students' training». Carrying out FIEB corresponds with the implementation of measures, targets and indicators set in subprogram 2 «Ensuring Global Competitiveness of Russian Higher Education» of the state program of the RF «Scientific and Technological Development of the Russian Federation» (Order of the Government of Russia of March 29, 2019, № 377).

Also EEC notes that Results of Independent monitoring of quality assessment are discussed at meetings with the deans of the faculties, the directors of the institutes and the heads of the departments. These results are also sent to all university units to be considered in the decision making process.

### ***Analytical part***

When implementing the EP mechanisms of the functioning of the quality assurance system of training created at the University function, including: monitoring and periodic review of the educational program; ensuring the competence of teaching staff; regular use of self-evaluation against agreed criteria to assess activities; the system of external evaluation of the quality of EP implementation; accounting and analysis of the views of employers and graduates of the University; agreements with foreign partners on the programs of mobility of students and teachers, etc.

RSHU is the first Russian university that is internationally accredited according to European standards. It is absolutely necessary that RSHU ensure that each University in the Russian Federation and all interested parties have access to information on the implementation of all recommendations and requirements that were made during the visit to the EP and the accreditation process.

Hydrometeorology is a profession that is recognized internationally, but needs further improvement through staff training, close research collaboration with other well-known international institutions, staff mobility to European institutions such as ECMWF, Reading, UK and ECMWF, Bologna, Italy, ETH Zurich, the UK Meteorological office, etc.

Basing on the results of the visit and the self-assessment report, the Commission

notes the following areas for improvement: it is necessary to strengthen the work on the revision of the content of working programs of disciplines taking into account international experience; to continue the work on the participation of educational programs in the procedures of independent external examination (professional and public accreditation, Internet testing, participation in ratings, etc.).

***Strengths of EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- RSHU was granted with Accreditation certificate of December 26, 2018, registration number 2971, series 90A01 № 0003116 (valid until December 26, 2024).

- for EP "05.03.05 Applied Hydrometeorology": - strong infrastructure, good research profile / but weak research cooperation;

- for EP 05.03.06 "Ecology and Environmental management": in 2018, RSHU conducted a professional public accreditation examination within the framework of the voluntary certification system «Arctic» ROSS RU.I1731.04ARKO. Professional Public Accreditation Certificates were granted to all the Educational Programs that had applied for accreditation ( <http://www.rshu.ru/sveden/document>)

- the period from November 26 to December 25, 2018, the state accreditation examination was conducted at RSHU. This led to the establishment of compliance with the content and quality of training of students in the University state educational standards.

***EEC guidelines for EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- Provide information about the implementation of recommendations and requirements in the University based on the results of external evaluation procedures.

***EEC's conclusions on Standard 10. CYCLICAL EXTERNAL QUALITY ASSURANCE:***

According to Appendix 1. Assessment chart «conclusions of the external experts commission» EEC states «**satisfactory**» position.

## **(VII) OVERVIEW OF THE STRENGTHS ON EACH STANDARD**

### **Standard 1. QUALITY ASSURANCE POLICY**

*EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:*

- Annual adjustment of programs of apprenticeship and themes of final qualification works in the part of individual tasks for students for target practical training and scientific research topics that are in demand at the request of potential employers and state Executive authorities.

- Periodic involvement of stakeholders (administration, teachers, students, graduates and representatives of professional communities) in determining the goals and strategies of educational programs.

- The possibility of experience exchange and international cooperation with other educational institutions.

### **Standard 2. PROGRAMME DEVELOPMENT AND APPROVAL**

*EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:*

- The unique features of the EP submitted to accreditation that differentiate it from other programs implemented in the region are shown.

- The University has demonstrated the distribution of functional and job responsibilities of staff and collegial bodies involved in the implementation of the EP, including program design, management, monitoring and improvement.

- The curriculum of the program 05.03.06 Ecology and Environmental Management meets the Bologna criteria of the student's workload (theory-practice-personal work).

### **Standard 3. STUDENT-CENTRED LEARNING AND PERFORMANCE ASSESSMENT**

*EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:*

- The "Valaam" training and research station provides students with an excellent opportunity to perform field work and conduct research in the field. This is one of the main achievements of RSHU in the field of education and research.

- Additional training for the student is free of charge.

- In the interests of students, there is an appeal procedure for violation of the final certification procedure and (or) disagreement with the results of the state exam.

### **Standard 4. STUDENT ADMISSION, PROGRESSION, RECOGNITION AND CERTIFICATION**

*EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:*

- Openness of information about the rules of admission and enrollment of applicants, transfer from course to course, availability of vacant budget places.

- For the EP "05.03.06 Ecology and nature management": within the framework of the EP, events are held with international partner universities. Partner universities in the Environmental program: University of Cadiz (Spain), University of Jena named after F. Schiller (Germany), University of Poitiers (France), Jagiellonian University (Poland), University of South Bohemia (Czech Republic).

### **Standard 5. ACADEMIC STAFF**

*EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:*

- Personnel policy is reflected in several regulations and in the Collective agreement.
- The teaching staff fully meets the requirements of the legislation of the Russian Federation.
- For the EP "05.03.06 Ecology and nature management": the professors are highly qualified and motivated. They are ready to participate in academic mobility programs and international research projects.

**Standard 6. LEARNING RESOURCES AND STUDENT SUPPORT SYSTEM**

***EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- Availability of material and technical support for all educational programs submitted to accreditation.
- RSHU is working on the development and application of various information resources: improving the web portal of RSHU; improving the portal of the Department of Additional Education, Admission and Employment of Students; improving the site of meteorological forecasts (weather.rshu.ru). The Site was created to provide scientific and educational activities of RSHU in the field of meteorological forecasting and contains various types of forecasts, which are constantly updated by teachers and students of RSHU.

**Standard 7. INFORMATION MANAGEMENT**

***EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- As part of the evaluation of the effectiveness and efficiency of its activities, the University conducts Monitoring and self-examination procedure every year.
- The University has a good structure of internal independent assessment of the quality of education.

**Standard 8. PUBLIC INFORMATION**

***Strengths of EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- Information about the University's educational programs is published on the official website of RSHU in the Internet.
- For the educational program 05.03.06 "Ecology and Environmental Management" - in addition to posting information on its website, the University informs the public about the results of its activities, plans and innovations in open days, participation in educational exhibitions, in the media, etc. Congresses, symposiums, fairs and conferences held in cooperation with potential employers allow all parties to effectively interact and cooperate. These activities allow us to assess the satisfaction of all stakeholders with the information provided by the RSHU.

**Standard 9 ON-GOING MONITORING AND PERIODIC REVIEW OF PROGRAMMES**

***Strengths of EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:***

- the management of the EP provided a review of the content and structure of the EP, taking into account changes in the labor market, the requirements of employers and the social request of society.
- for the EP "05.03.05 Applied Hydrometeorology": the documents of the Department confirm the participation of students, employers and other stakeholders in the revision of the EP;
- for EP 05.03.06 "Ecology and Environmental Management": the main mission of the USC at RSHU is to take into account the views of students about the University management

and regulations of the University regarding the rights and legitimate interests of students. USC is a collegial body of the University's student administration. The Chairman of the USC is a member of the Academic Council of RSMU, takes part in the meetings of the rector. In addition, USC oversees the issues of social and financial support for students. Representatives of students are members of the scholarship committees of schools and institutes of RSHU. Meeting the needs of students is reflected in the growth of the average score of final examinations of school graduates: 05.03.06. Ecology and Environmental Management: 2017 - 57,2; 2018 - 63,27; 2019 year-73.33.

**Standard 10. CYCLICAL EXTERNAL QUALITY ASSURANCE**

*EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:*

- RSHU was granted with Accreditation certificate of December 26, 2018, registration number 2971, series 90A01 № 0003116 (valid until December 26, 2024).

- for EP "05.03.05 Applied Hydrometeorology": - strong infrastructure, good research profile / but weak research cooperation;

- for EP 05.03.06 "Ecology and Environmental management": in 2018, RSHU conducted a professional public accreditation examination within the framework of the voluntary certification system «Arctic» ROSS RU.I1731.04ARKO. Professional Public Accreditation Certificates were granted to all the Educational Programs that had applied for accreditation ( <http://www.rshu.ru/sveden/document>)

- the period from November 26 to December 25, 2018, the state accreditation examination was conducted at RSHU. This led to the establishment of compliance with the content and quality of training of students in the University state educational standards.

## **(VIII) OVERVIEW OF RECOMMENDATIONS ON IMPROVEMENT OF QUALITY ON EACH STANDARD**

### ***Standard 1. QUALITY ASSURANCE POLICY***

*EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:*

- Develop an internal regulatory document (local act) on the basis of which risks will be identified, their forecast will be carried out, and the implementation of the educational program development plan will be adjusted.

- Develop a plan to attract employers, students and teaching staff to the formation of a road map for the development of EP in the context of multi-level training: "bachelor – master –postgraduate».

- Develop and regularly conduct a survey of students' satisfaction with the quality of education at the end of each term in each discipline. Analysis of satisfaction surveys related to all disciplines taught by each professor, specialty, or year of study will provide valuable information for identifying weaknesses and developing corrective measures.

### ***Standard 2. PROGRAMME DEVELOPMENT AND APPROVAL***

*EEC guidelines for EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:*

- To create a working group to study the experience of developing educational programs (modules) of partner universities with the subsequent integration of the acquired knowledge in the development plans of the EP.

- To intensify the work on attracting stakeholders to work on determining the impact of disciplines and professional apprenticeships on the formation of learning outcomes.

- Involve students in the development of EP and monitor their quality.

*Additional guidelines for EP 05.03.05 Applied Hydrometeorology:*

- For EP 05.03.05 Applied Hydrometeorology, profile «Applied Oceanology» strengthen the link between the activities of the apprenticeship base and the individual educational trajectory of the student when concluding contracts for professional apprenticeship.

### ***Standard 3. STUDENT-CENTRED LEARNING AND PERFORMANCE ASSESSMENT***

*for EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:*

- Stimulate the activities of the Student Scientific Society to increase the number of scientific publications as a tool to improve the effectiveness of research activities of students.

- To develop and expand the directions of scientific research of the faculty in the field of preparation of author's technologies, various forms and new methods of teaching disciplines within the framework of the EP.

*Additional guidelines for EP 05.03.05 Applied Hydrometeorology:*

- For EP 05.03.05 Applied Hydrometeorology, profile «Applied Oceanology» it is recommended that online discussion forums and other training activities be introduced into the training process.

### ***Standard 4. STUDENT ADMISSION, PROGRESSION, RECOGNITION AND CERTIFICATION***

*for EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:*

- Create a Commission and develop a methodology for the harmonization of criteria

for evaluating educational achievements of students, applicable to all disciplines of the EP, following the Bologna standards.

- To recommend that the Association of graduates of LGMI-RSHU systematically updates information about their activities on the University's website.

- In monitoring procedures to strengthen the implementation of the mechanism of effective "post-graduate support" of students related to employment and career development of graduates, organization of work with employers.

*Additional guidelines for EP 05.03.05 Applied Hydrometeorology:*

- ensure that the credits of the subjects included in EP are recognized in accordance with the principles of the Lisbon Convention, which will help to improve the performance in accordance with international standards.

#### **Standard 5. ACADEMIC STAFF**

*for EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:*

- Academic mobility of teaching staff should be carried out on a systematic basis.
- To create conditions for attracting to the teaching of practitioners and employers.
- To link the level of competence of teachers defined in the University with the professional standard, the industry framework and the European qualifications framework (EQF).

#### **Standard 6. LEARNING RESOURCES AND STUDENT SUPPORT SYSTEM**

*for EP 05.03.06 Ecology and Environmental Management:*

- For EP 05.03.06 Ecology and Environmental Management: create an electronic database (repository) with online access to documentation for all students of EP, where you can get all the information on educational materials, scientific publications, theses, environmental legislation.

*for EP 05.03.05 Applied Hydrometeorology:*

- For EP 05.03.05 Applied Hydrometeorology:
  - Improve the mechanism for ensuring copyright compliance when placing educational and methodological material in the public domain;
  - Provide support for the course on GIS technologies with modern software tools of an applied nature.

#### **Standard 7. INFORMATION MANAGEMENT**

*For EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:*

- Create an electronic database for undergraduates, undergraduates and postgraduates to periodically obtain information about the proposed research work and its potential connection with the bachelor's degree.
- Consider the widespread use of Sakai and Moodle information resources for effective management of educational programs.

#### **Standard 8. PUBLIC INFORMATION**

*For EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:*

- Place on the official website of the University full information about the faculty, researchers, providing the activities of accredited EP in the context of specialties.
- On the website of the University to provide access to information about the

interaction with scientific / consulting organizations and educational organizations that implement such projects.

*Additional EEC guidelines for EP 05.03.05 Applied Hydrometeorology:*

- detailed information about all courses and modules should be available online on the University's website, and staff should periodically update the course content to make the course attractive to students.

***Standard 9 ON-GOING MONITORING AND PERIODIC REVIEW OF PROGRAMMES***

*For EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:*

- Systematize criteria for evaluating educational achievements of students in all types of work.

- To ensure the completeness of the information field of the site in accordance with the requirements of openness and accessibility of information for persons interested in the development of educational programs.

*Additional EEC guidelines for EP 05.03.05 Applied Hydrometeorology:*

- All disciplines of EP "05.03.05" Applied Hydrometeorology", profile "Applied Oceanology" should be periodically checked and revised with subsequent correction taking into account the feedback received from surveys of students, employees, other interested parties, including funding bodies and external evaluation bodies.

***Standard 10. CYCLICAL EXTERNAL QUALITY ASSURANCE***

*for EP 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture:*

- Provide information about the implementation of recommendations and requirements in the University based on the results of external evaluation procedures.

**Appendix 1. Assessment chart «conclusions of the external experts commission» (for EPs 05.03.05 Applied Hydrometeorology, 05.03.06 Ecology and Environmental Management, 35.03.08 Aquatic Bioresources and Aquaculture)**

№	International standards IAAR ESG Part 1.	position of the EO			
		strong	satisfactory	improvement implied	unsatisfactory
<b>Standard 1. QUALITY ASSURANCE POLICY</b>					
1	Institutions should have a policy for quality assurance that is made public and forms part of their strategic management. Internal stakeholders should develop and implement this policy through appropriate structures and processes, while involving external stakeholders			+	
<b>Standard 2 PROGRAMME DEVELOPMENT AND APPROVAL</b>					
2	Institutions should have processes for the design and approval of their programmes. The programmes should be designed so that they meet the objectives set for them, including the intended learning outcomes. The qualification resulting from a programme should be clearly specified and communicated, and refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area		+		
<b>Standard 3 STUDENT-CENTRED LEARNING AND PERFORMANCE ASSESSMENT</b>					
3	Institutions should ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach		+		
<b>Standard 4. STUDENT ADMISSION, PROGRESSION, RECOGNITION AND CERTIFICATION</b>					
4	Institutions should consistently apply pre-defined and published regulations covering all phases of the student “life cycle”, e.g. student admission, progression, recognition and certification			+	
<b>Standard 5. ACADEMIC STAFF</b>					
5	Institutions should assure themselves of the competence of their teachers. They should apply fair and transparent processes for the recruitment and development of the staff		+		
<b>Standard 6. LEARNING RESOURCES AND STUDENT SUPPORT SYSTEM</b>					

6	Institutions should have appropriate funding for learning and teaching activities and ensure that adequate and readily accessible learning resources and student support are provided.		+		
<b>Standard 7. INFORMATION MANAGEMENT</b>					
7	Institutions should ensure that they collect, analyse and use relevant information for the effective management of their programmes and other activities.			+	
<b>Standard 8. PUBLIC INFORMATION</b>					
8	Institutions should publish information about their activities, including programmes, which is clear, accurate, objective, up-to date and readily accessible.		+		
<b>Standard 9 ON-GOING MONITORING AND PERIODIC REVIEW OF PROGRAMMES</b>					
9	Institutions should monitor and periodically review their programmes to ensure that they achieve the objectives set for them and respond to the needs of students and society. These reviews should lead to continuous improvement of the programme. Any action planned or taken as a result should be communicated to all those concerned.		+		
<b>Standard 10. CYCLICAL EXTERNAL QUALITY ASSURANCE</b>					
10	Institutions should undergo external quality assurance in line with the ESG on a cyclical basis.		+		
<b>Bcero</b>		<b>0</b>	<b>7</b>	<b>3</b>	<b>0</b>