



FINAL REPORT

EXTERNAL REVIEW OF THE STUDY PROGRAMMES IN

Reproduction and Processing of Timber Resources

delivered by the Northern (Arctic) Federal University
named after M.V. Lomonosov



Kaliningrad, 2012

REPORT
ON THE RESULTS OF EXTERNAL REVIEW
Of Study Programmes in Reproduction and
Processing of Timber Resources
delivered by the Northern (Arctic) Federal
University named after M.V. Lomonosov

Review Panel Chair



A handwritten signature in black ink, appearing to read 'A.K. Red'kin', is written over a horizontal line.

A.K. Red'kin

TABLE OF CONTENTS

EXECUTIVE SUMMARY	3
1. CONTEXT AND MAIN STAGES OF THE REVIEW	3
1.1 Reasons for commissioning the review.....	3
1.2 Composition of the External Review Panel:	4
1.3 Purpose and Objectives of the External Review	4
1.4 Stages of the External Review	5
2. DESCRIPTION OF THE STUDY PROGRAMMES	6
3. RESULTS OF THE EXTERNAL REVIEW OF THE STUDY PROGRAMMES	8
3.1 STANDARD 1. Policy (mission, vision) and procedures for quality assurance of the study programmes.....	8
3.2 STANDARD 2. Approval, monitoring and periodic review of study programmes.....	9
3.3 STANDARD 3. Assessment of student learning outcomes (competencies).....	10
3.4 STANDARD 4. Quality assurance and competencies of teaching staff	11
3.5 STANDARD 5. Learning resources and student support	12
3.6 STANDARD 6. Information system providing effective implementation of the study programme.....	13
3.7 STANDARD 7. Public information.....	14
4. RECOMMENDATIONS FOR IMPROVEMENT	14
5. CONCLUSION	16
ANNEX A.....	17
ANNEX B.....	18
ANNEX C.....	20
ANNEX D.....	21

EXECUTIVE SUMMARY

External review of the study programmes in Reproduction and Processing of Timber Resources delivered by the federal state autonomous educational institution of higher professional education Northern (Arctic) Federal University named after M.V. Lomonosov was held from September 2012 till November 2012 and the review included the analysis of the self-evaluation report on of the study programmes under review, site-visit of the university by the panel members and preparation of the present report.

The main purpose of the external review is to assure that the study programmes in Reproduction and Processing of Timber Resources comply with the Standards and Criteria for Public Accreditation of Higher Education Programmes (hereinafter – NCPA Standards and Criteria) developed by the National Centre of Public Accreditation (NCPA) in accordance with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG-ENQA).

The External Review Panel which was composed of Russian and foreign experts, visited NArFU between 12 November, 2012 and 14 November, 2012. During the visit the panel had meetings and interviews with the administration of the university, members of the staff responsible for accreditation, graduates, teaching staff members of the majoring departments, undergraduate and postgraduate students and employers. Administration of the University and the Forestry Engineering Institute were not present at the meetings with focus groups (undergraduate and postgraduate students, teaching staff, alumni and employers), which helped to increase impartiality of the process.

The Panel confirms a high level of the visit arrangements including meetings and interviews arrangement, providing the panel with the premises, access to the Internet from the university party and that of the staff of the National Centre of Public Accreditation.

The present Final Review Report provides the basis for a decision on public accreditation which is to be made by NCPA with respect to the programmes under review against NCPA Standards and Criteria.

The main goal of public accreditation is to enhance quality of education and to promote quality culture in education institutions, to identify best practices of ongoing improvement of educational quality, as well as to ensure public provision of information about education institutions delivering study programmes in accordance with European standards of educational quality.

1. CONTEXT AND MAIN STAGES OF THE REVIEW

1.1 Reasons for commissioning the review

Article 33.2, Point 41 of the Law of the Russian Federation “On Education” of 8 November 2010 №293-Ф3 stipulates that education institutions have the right to undergo public accreditation procedures conducted by Russian, foreign, or international educational, scientific, public, or other organisations. Information on the outcomes of such accreditation shall be considered in the state accreditation review process.

To undergo the public accreditation procedure regarding the study programmes in “Reproduction and Processing of Timber Resources” the Northern (Arctic) Federal University named after M.V. Lomonosov applied to the National Centre of Public Accreditation which carries out its activities at the national level and is recognized

by the leading international organisations of quality assurance in higher education¹. (Annex A)

1.2 Composition of the External Review Panel:

The review panel was composed of:

- **Anatoly Redkin** - D.Sc., Professor, Head of Forestry Machinery and Equipment Department, Moscow State Forest University (Moscow, Russia);
- **Svetlana Avdashkevich** – PhD, Associate Professor, Vice-rector for Academic Affairs, Saint Petersburg State Forest Technical University under name of S.M.Kirov (Saint Petersburg, Russia) – Deputy Review Chair;
- **Alfred Pitterle** – D.Sc., Associate Professor, Dipl.-Ing., Forestry Institute, Vienna University of Natural Resources and Applied Life Sciences (BOKU); Chair of the Scientific Council, Head of Quality Control Department of the Agency for European Integration and Economic Development (Vienna, Austria) – Panel member;
- **Alexey Shurgin** – PhD (Agriculture), Director of the Interregional Forestry Resource Center, Head (Forester) of State Institution of the Republic of Mari El "Kuyarskoe Forestry" (Yoshkar-Ola, Russia) – Panel member;
- **Sergey Torkhov** – Chief Engineer of the Federal Forestry Agency Branch «Roslesinfor» (Arkhangelsk, Russia) –Professional practice representative;
- **Alexandra Rogozina** – 2nd year post-graduate student, specialty "Internal Medicine", Assistant of Clinical Pharmacology and Pharmacotherapy Department, Junior Researcher at the Central Research Laboratory of Northern State Medical University (Arkhangelsk, Russia) – Student member.

1.3 Purpose and Objectives of the External Review

The main purpose of the external review is to assure that the study programmes in Reproduction and Processing of Timber Resources comply with the Standards and Criteria for Public Accreditation of Higher Education Programmes (hereinafter – NCPA Standards and Criteria) developed by the National Centre of Public Accreditation (NCPA) in accordance with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG-ENQA)

The main goals of public accreditation of study programmes in forestry field are as follows:

- To enhance responsibility of the administration, teaching staff and students of the university in implementing education as socially important welfare, fulfilling social functions of education, public and social requirements to the outcomes of higher professional training;
- To create mechanisms to fulfill the right of the citizens for obtaining reliable information and feedback; providing reliable information to the employers, population, consumers of the educational services on the quality of training in the field of forestry industry in the higher educational institution;
- To provide support for objective assessment of educational, academic and methodological, research and international activities;

¹ The Central and Eastern European Network of Quality Assurance Agencies in Higher Education CEENQA (full membership); The Asia-Pacific Quality Network APQN (full membership); The International Network for Quality Assurance Agencies in Higher Education INQAAHE (associate membership); The European Network for Quality Assurance in Higher Education ENQA (associate status).

- To improve university activities through dissemination of good practices in the field of forestry education.

1.4 Stages of the External Review

External review of study programmes in Reproduction and Processing of Timber Resources was conducted in three stages: 1) studying self-evaluation report of the study programmes and other documentation submitted by the university by the panel; 2) site-visit to the Northern (Arctic) Federal University; 3) preparation of the findings of review outcomes.

1.4.1 Self-evaluation

The external review panel was submitted with the self-evaluation results of the study programmes as a report of Forestry Engineering Institute for self-evaluation of the study program Forestry with addenda.

Forestry Engineering Institute conducted the analysis of the contents, level and quality of training, contents of professional study programmes, evaluation of Forestry Engineering Institute development dynamics, Institute's tangible wealth, quality of training in Forestry study field in conformity with the State Educational Standard and Federal State Educational standard. They set up a commission represented by all parties of the educational process to provide self-evaluation. Self-evaluation report was discussed at the sitting of the Scientific Council of the Forestry Engineering Institute on September 20, 2012 and as a result of that the decision was taken that the Institute is ready for public accreditation of Forestry study field. Self-evaluation report is on the university website at: <http://www.narfu.ru/studies/accreditation>

The report was forwarded to the panel members in due time. The self-evaluation report showed all the spheres of the review. The members of the panel compiled question for thorough studying and specifying the issues during the site-visit to the Forestry Engineering Institute.

1.4.2 Site-visit to the Educational Institution

The review panel was on a visit at the university November 12- 14, 2012 in order to verify the information of the self-evaluation report and to collect additional data referring the implementation of the study programmes under review and their conformity with the standards of the National Center of Public Accreditation, European standards of education quality assurance. In the evening on November 11, 2012 the preliminary meeting of the panel members was held.

The time and the programme of the visit were defined by the National Center of Public Accreditation and approved after agreement with the administrative staff of the university and review panel members.

The information contained in the self-evaluation report on study programmes under review was verified during the scheduled meetings and interviews with the administration of Forestry Engineering Institute, alumni, students, teachers, employers and post graduates.

During the site-visit the panel members visited the library of the university, saw electronic educational resources, textbook stock, study programmes under review, library facilities, the panel members evaluated the availability of the educational resources for students and teachers; the panel members looked around departments of Forestry Engineering Institute, attended classes, interviewed the support staff of the institute.

The programme of the visit was completed, arrangements were made precisely according to the schedule of the panel. The panel members did not interrupt their work during the whole period of their work. All the materials requested were provided fully within the specified time.

The administration of the university provided all the support. The number of the respondents allowed the panel members to make an assessment of the conformity of the study programmes under review with the standards of public accreditation. Assessment sheets and reference tables with comments were made.

A detailed programme of the visit is given in Annexes B and C.

2.4.3 Conclusion on the Results the External Review

The final meeting was attended by all the experts. As a result of the discussion of the experts' opinions a complex evaluation of the study programme Reproduction and Processing of Timber Resources was given.

By the results of the review of the university's study programmes, the panel submitted the report on the results of the review of the study program Reproduction and Processing of Timber Resources to the National Center of Public Accreditation.

The working version of the report as long as 17 pages without addenda was prepared by the Deputy Chairperson of the panel and after two-stage agreement with the other members of the panel was submitted to the administration of the university for correcting the actual errors. After that the report was submitted to the National Center of Public accreditation the National Center of Public Accreditation for taking accreditation decision.

2. DESCRIPTION OF THE STUDY PROGRAMMES

The strategic purpose of the university is provide innovative, scientific and staff resources for protecting geopolitical, and economical interests of Russia in the Northern and Arctic Region (NAR) by creating the system of continuous professional education, integration of education, science and production, strategic partnership with the business community. The purposes and objectives are presented in the programme of the strategic development of the university up to 2020 approved by the order of the RF Government of October 7, 2010. Forestry Engineering Institute (FEI) was set up on September 1, 2010 in accordance with the order of the Rector of Northern (Arctic) Federal University No. 192 of June 16, 2010 based on three faculties (Forestry, Mechanical Technology of wood and Natural Resources). The Institute is composed of the following departments of the university:

- Department of Water Transport and Hydraulics.
- Department of Geodesy and Land Registry.
- Department of Graphics.
- Department of Wood Studies and Wood Heat Treatment.
- Department of Forest Inventory and Forest Regulation.
- Department of Forest Species and Landscape Architecture.
- Department of Forestry and Soil Science.
- Department of Sawmill and Planer Production.
- Department of Furniture and Design.
- Department of Industrial Transport.
- Department of Timber Engineering Technology.
- Department of Ecology and Forest Protection.

Forestry Engineering Institute while implementing purposes and objectives specified in the university development strategy provides training of highly-qualified staff, scientific support of timber engineering enterprises in Arkhangelsk Region and in Russia as a whole.

The set up the center for education quality monitoring and its main activity is making educational programmes of ENQA certification. To increase the quality of training and the conformity of the university with the consumer requirements, in 2008 Arkhangelsk State Technical University introduced the system of quality management. Certification association Russian Register issued the certificate IQNet of the conformity of the quality management system with the international standards ISO 9001:2000 (valid till February 6, 2011). In 2012 by the decision of the Academic Council study programmes 250201.65 Forestry full-time and correspondence education; 250100.62 Forest Science full-time and correspondence education; 250100.68 Forest science full-time education were submitted for public accreditation. Contingent of students of all forms of education amounts to 243 people.

The main study programme, the curriculum were submitted for employers' approval and the review of BEP being present. Academic process quality monitoring is conducted regularly. The procedure is regulated by the following documents: Statute on the Current Monitoring of Attendance, on Intermediate Assessment of the Students of higher professional training programmes, Implementation of the point and rating assessment of students' learning outcomes, there are also contracts at FEPO, Statute on Final assessment, Statute on Final Examinations.

Master degree program in Forest Science has been open since 2010. Within this programme five Master degree programmes are provided: Forest Regulation, and Forest Monitoring, Forestry and Silvics, Rational Nature Management in Arctic and Subarctic Areas, Forest Ecology and Nature Protection, Parkland Architecture and Management.

By the results of quality evaluation conducted by the National Center of Public Accreditation the study programmes submitted for public accreditation were recognized to be the best programmes of innovative Russia in 2011-2012. By the results of the Internal contest Master degree programme Rational Nature Management in Arctic and Subarctic Areas in the study field Forest Science was the winner within Provision of Urgent Contents of Education and Training Technologies Contest.

Academic and laboratory stock has 76 pieces of equipment. There is a Joint Use Center, experimental forestry enterprise, Center for Forest Investigation, Dendrology Garden. The total value of the equipment used for academic purposes is 34,316 m rubles. For January 1, 2012 года the allocations for equipment purchase amounted to 65 m rubles. The rate of square per 1 student is 13.6 sq. m.

Indices of scientific degree rate of the teaching staff is 62.5 %, for 2011-2012 22 papers publications in the reviewed journals were published, 5 monographs having been published. The teachers of the Institute took part in 50 conferences including 10 International ones. The share of scientific and research work funds takes 2% in the salaries of the teaching staff.

Foreign partners to have partnership with Forestry Engineering Institute in the field of science and education are North Trondelag University College (Norway), Rovaniemi University of Applied Science (Finland). The strategy of internationalization of the institute has been affirmed. Applications for international projects within North LAMP, TEMPUS have been prepared. By the Exchange

programme 8 students of Forestry Engineering Institute study in Norway and 1 post graduate from Norway studies at Forestry Engineering Institute.

3. RESULTS OF THE EXTERNAL REVIEW OF THE STUDY PROGRAMMES

3.1 STANDARD 1. Policy (mission, vision) and procedures for quality assurance of the study programmes

Compliance with the standard: **substantial compliance**

Strategy for the Development of FSAEI HPE "Northern (Arctic) Federal University" for the period of 2010-2020" was approved by the Federal Government on 07 October 2010 #1695-r. Programme for the Development of the University is available to the public and posted on the website <http://www.narfu.ru/>. Development Priorities of the Forestry Engineering Institute are clearly indicated in the Strategy for the Development of NArFU and can be defined as the integrated use of biological resources; the protection and preservation of the environment. Education, scientific research, international activities of the Forestry Engineering Institute are realized through the integration of material and intellectual resources.

The strategy of the development of the study programmes is in compliance with the strategies for the University. The focus of the Institute management and staff is targeted at the following: to achieve a high quality of training, similar to that of the best Russian and world standards on the basis of the unity of the educational, scientific and technological processes, to improve further training of staff in priority areas of personal development; to train persons with the best competencies, with analytical and leadership skills, teamwork skills; to ensure the leading level of research and development, and secure a leading position in the North-West region, to provide access to the Russian and international market of research industry, that will include integration with the scientific institutions and industry in the region; to develop innovative culture and technology transfer mechanisms, aimed at developing a culture of entrepreneurship among graduates of Forestry Engineering Institute as a key factor that connects all of the following: the knowledge gained at university, research skills, experience with production and management; to expand international relations, which will help integrate Forestry Engineering Institute in the global educational and scientific space, that includes leaders in the export of educational services; to develop human resource, designed to provide the basis of innovation and improve the competitiveness of FEI in the education market; to develop management and financial-economic activities that will help integrate the efforts of the staff of the Institute to achieve the goal with the least necessary expenditure; to develop the material infrastructure, providing the necessary conditions for scientific and educational activities.

Coordination of educational and methodical work, the organization of the study process at NArFU and Forestry Engineering Institute, its departments is carried out by the Educational-Methodical Council of the University. There were defined the basic trends of methodological work at the university, modern educational technologies are being introduced. Specialized commissions of the Council discuss improvement of educational activity, as well as regulatory and methodological support of the study process.

Monitoring the achievement of the planned markers is carried out on a regular basis, the results of the work are considered at meetings of the Academic Council of the Institute.

Recommendations of ERP:

It is recommended to define more clearly the goals and objectives of the programmes under review, taking into account the prospects of the forest industries in the Arkhangelsk region, the methods of adjustments to achieve objectives with regard to the opinion of employers and students. Adjustment of the goals and objectives of the study programme must be consistent and available to all stakeholders.

3.2 STANDARD 2. Approval, monitoring and periodic review of study programmes

Compliance with the standard: substantial compliance

The study programmes under review have basic education programmes, methodological support and normative documentation that guides the study process. There was determined the compliance of FSES HPE with SES HPE. Forestry University realizes the following study programme "Forest Management" and trains specialists with the following specialties: "Forest Management", "Forest Certification", "Recreational Forest Management and Tourism", "Integrated Forest Management"; as well as Master's programmes "Forest management and forest monitoring", "Environmental management at landscape basis in the Arctic and sub-Arctic" and a specialist programme "Forestry".

While working out the curriculum there was taken into account the consistency of disciplines, a logical sequence of their studying is guaranteed. One thing that was also noted is the management of theoretical and practical training of the student, which has balance of classroom and self-study work, besides at least 40% of classes are classes in an interactive way.

Curricula and course syllabi were designed to meet to employers' requirements, and are regularly reviewed in connection with the adjustment of the goals and objectives of the study programme, in regard to the use of new educational technologies, and modernization of techniques and technology. Based on the employers advice ("Roslesinform", JSC "Severnaya Zvezda") the new courses relevant to the industry were included in the curriculum, students choice is taken into account while forming the courses of the students' choice.

The following can be regarded as the achievements of the study programmes:

- there is a system for quality assurance, validated by the certificate "Russian Register" in 2012;
- the faculty of the Institute use modern forms and methods of education - business and role play, discussions;
- computer knowledge control technology is widely used, etc.

Good practice-oriented teaching and laboratory facilities can form professional knowledge/competence with the natural material, plant herbarium, collections of insects, alcoholic preparations of insects, collection of stuffed animals, etc. and the possibility to use the surrounding nature, learning objects of the Emtsevsky teaching experimental forestry enterprise (there were identified 45 territories with the area of 25-30 hectares, where students do independent work on forest inventory, silviculture and forest protection), tractor fleet with the forest machines, required for practice.

Recommendations of ERP:

While drafting and developing the curricula and course syllabi one needs to be more responsive to the students' opinions.

While developing BEP it is necessary to consider the development of the leading teaching and research schools within the forestry domain.

It is important to develop test materials for the quality control.

Sufficient sanitary living conditions should be provided in all types of practice at training sites of the Forestry Engineering Institute.

3.3 STANDARD 3. Assessment of student learning outcomes (competencies)

Compliance with the standard: substantial compliance

The procedure for assessing the level of knowledge and the final qualification is developed and regulated by the documents, the information is available and accessible to students. NArFU is introducing into the study process the system of knowledge test control to improve objectivity of the assessment of quality of training, all the departments have developed and tested Accreditation Educational Testing Materials (AETM).

Monitoring the quality of students training (online testing, student conferences, assignments, presentations, reports) is regularly performed, the results of which are discussed in the student groups, departments and the meetings of the Scientific Council of the Forestry Engineering Institute. Information is open and available to students, the work is performed on a regular basis.

Forestry Students participate regularly in the Federal Internet-exams in professional education (FEPE). Independent external review can guarantee objective assessment of the level of students' training and the extent to which the content of training courses comply with the requirements of educational standards, and promote the creation of a system to ensure the quality of the students' training. The results of the examination are positive. According to the results of the Internet-exam that was held in the summer session of the academic year 2011-2012 the percentage for the courses of the curriculum learnt by students is not below the threshold (baseline).

Final state attestation of graduates is held in NArFU according to the written regulations. The structure of the Higher Attestation Commission of the study programme "Forestry" includes representatives of employers, business leaders in Forestry of the Arkhangelsk region - at least half of the total number of commission members. Final qualifying work (degree thesis) of the Institute graduates meets the current requirements for the training of specialists for the forest industry.

Students do research work, the results of scientific research are presented in the form of students papers at the annual conference of NArFU "Lomonosov Scientific Conference of Students and Young Scientists", as well as at the conferences of young scientists from Russia; there are student publications, and final qualifying works participate in contests and competitions in the specialty. According to the results of the Russian student competition in Saratov in 2012 FI students took 1st degree diplomas for the team of FSAEI HPE NArFU in the nomination "Plant Protection" and "For the design phase of the ESR", III degree diplomas for the team of FSAEI HPE NArFU in the categories "Urban Ecology" and "Design of small architectural forms".

The following can be regarded as the achievements of the study programmes:

- sustainable demand for graduates in the forest industry, and in the public service.
- a high level of professional adaptation, participation of graduates in the work of the institute (participation in the HAC, providing places for practice/internship);
- training in the study programme “Reproduction and processing of forest resources” which is in demand in the Arkhangelsk region, Russia and Europe;
- demand for the study programme among the students, as evidenced by sufficient competition among the applicants to the university;
- – availability of different study profiles in the given line of training.

Forestry Engineering Institute is working to train specialists who are in demand in the labour market. Over the last 5 years there have not been reported any complaints from consumers.

There has been regular survey of graduates in regard with their possibilities, difficulties and problems with employment, based on the level of professional knowledge/competencies, the results of which are considered in the adjustment of the BEP.

Recommendations of ERP:

It is recommended to develop criteria for assessing the competencies.

It is recommended to improve students' motivation to do research work, to publicize scientific activity and not only in the framework of the final qualifying works, to increase participation in competitions of research, grant support of research students through a the internal university/institute grant system and at work of the scientific societies.

It is recommended to develop a system of financial incentives for students who are engaged in research work.

3.4 STANDARD 4. Quality assurance and competencies of teaching staff

Compliance with the standard: substantial compliance

The faculty of the departments of Forestry Engineering Institute is all qualified teachers with education in the domain of the courses they teach, with academic degrees, public honors and awards, letters of gratitude from the leadership of the Arkhangelsk region, are members of specialized councils in Forestry and Agriculture.

The Full-time faculty of the major departments of Forestry Engineering Institute is 32 people, including: Doctors – 9 persons (28%), Candidates - 21 persons (66%). The total number of teachers with academic degrees and titles is 94%. Professional development of the teaching staff is carried out on a regular basis.

The research work of teachers is carried out within the framework of the state budget and is subject of the department, also there are economic agreements with companies, research institutions and organizations (including foreign ones). Teachers participated as auditors of forest management in the framework of the voluntary certification.

The following can be regarded as the achievements of the study programmes:

- high qualifications of the teaching staff; good real experience; the high state and regional assessment of the faculty; an active educational and methodological work on the preparation of textbooks, teaching materials; the magazine, which is included in the list of peer-reviewed and recommended for publication by State Commission for Academic Degrees and Titles; relatively high citation index of the faculty;
- there are two doctoral thesis councils.

Recommendations of ERP:

It is recommended to use better the possibility of teachers training in the leading educational research institutions in Russia and abroad.

It is recommended to increase the amount of research.

It is recommended to develop a system of financial incentives for faculty research activities.

3.5 STANDARD 5. Learning resources and student support

Compliance with the standard: **substantial compliance**

Material support of the study programme "Forest management" meets the requirements of SES HPE and FSES HPE, there are well-equipped classrooms: classrooms of forest management, silviculture, geology and soil science, forestry machines, non-timber forest products, forestry, forest meteorology, landscaping; Laboratory of Soil Science and Agricultural Chemistry, botany and ecology, entomology, biology, animals and birds, hunting, Dendrology, plant pathology, computer classes. Within the structure of Forestry Engineering Institute there are unique facilities such as Laboratory "Arboretums name after I.S. Stratonovich". The laboratory of the department has the necessary equipment, teaching aids are widely used (biological microscopes, binocular microscopes, scales, gas analyzers, light meters, meteo meters, portable weather station, drying oven, multimedia equipment), as well as the plants herbarium, collections of insects, alcohol insect products, collection of stuffed animals, carcasses of birds and mammals, mammal skulls, skins of mammals, collections of fungi, rot, models, posters, etc.

Modern equipment of the NArFU Center of shared usage, Space Monitoring Center is used in the study process. In 2012 was assigned 65 million rubles.

The following can be regarded as the achievements of the study programmes:

- a high level of availability of educational and methodological literature for the study programme "Forestry";
- there is the University Research Library named after M.V. Lomonosov - adapted to the educational and scientific process of the University (Institute) information space. The total collection of the library is more than 1.6 million volumes, in 2011 new electronic reading room with access to the resources of the Presidential Library named after B.N. Yeltsin was opened.
- there is a high-speed access to electronic educational resources available for students and teachers.

There is a system of social and educational work at NArFU (NArFU training center for volunteers, socio-psychological center, university creative center, support center for initiatives, Headquarters of student groups, University Museum, health center, kindergarten #19 "Zorenka"). There is an ongoing interaction with the youth self-government and student associations.

Social infrastructure includes university dorms, so all non-resident students of Forestry Engineering Institute are provided with accommodation.

There is a kindergarten at the university in order to strengthen the social protection of children of the university staff and students, and to meet the needs of families and communities to care for children.

The following can be regarded as the achievements of the study programmes:

- There is a sufficient material and technical support, methodology, staff support of the organizational structure. "Research Center of forests" can be recognized as a model of providing training for the bachelors' study programme "Information and space systems in ecology and forest management" and the Master's programme "Forest management and forest monitoring", in the study line "Forestry";
- The Institute possesses the right of perpetual use of the area of Emtsovo training-experience forest enterprise which is a training base for all kinds of practical training, scientific and educational purposes;
- The university infrastructure is adapted to the student community.

Taking into account the importance of the level of students' practical training, professional knowledge, and studying at two shifts, it is recommended to increase the Classroom Fund, primarily for laboratory work.

It is recommended to improve the level of equipment of the institute's laboratories with modern equipment, training facilities, which will correspond to the level of a European university.

It is recommended to adjust in accordance with sanitary norms the conditions of internship in the training-experience forest enterprise.

The university/institution management should pay attention to creating a favorable environment for the education of students on the basis of feedback from the student community.

3.6 STANDARD 6. Information system providing effective implementation of the study programme

Compliance with the standard: substantial compliance

Educational management, organization and methods of the educational process is provided by the NArFU Educational Department. There are available (on the official website and other resources of NArFU) teaching, regulatory documents for all participants of the study process. The information is accurate, and regularly updated. NArFU is implementing the first phase of modernization of the management process «Tandem University», which provides standardization and automation of the study process at the university, the system of automated workflow and electronic document «DocsVision».

Students review indicated that availability of electronic educational resources increases the access to information, and stimulates interest in learning.

The following can be regarded as the achievements of the study programmes:

- there is a corporate portal;
- NArFU administration and teachers work hard to design, and post all necessary resources on the portal.

- there have been implemented the information system for monitoring the key performance indicators of the Forestry Engineering Institute.

Recommendations of ERP:

It is recommended to use more actively interactive forms of learning.

It is recommended to use widely distance learning, to develop educational resources for distance learning.

3.7 STANDARD 7. Public information

Compliance with the standard: **substantial compliance**

Informing the public about its activities and results is carried out by Forestry Engineering Institute via training, retraining and professional development: FI is the main supplier of personnel in the region for the forest industry, which collaborates with departments of the Federal Forestry Agency (16 forest enterprises), forest enterprise of the Arkhangelsk region of North -West of Russia.

Participation in the study process of the professional community, the assessment of the level of training is carried out through lectures, coordination of curricula and courses syllabi, providing a places for internship, work as a member of HAC.

Forestry Engineering Institute is doing a great work of professional guidance: meeting with students, students' parents, open houses, meetings with teachers, conducting lectures, round tables, propaganda teams performances, lectures, presentations, conducting surveys, excursions to the university and to the enterprises, organization of games and contests.

The following projects are being implemented: Days of NArFU, School of geniuses, Science, Education, Career.

Information on the study programmes of Forestry Engineering Institute is mainly posted on University information portal <http://www.narfu.ru>, as well as in specialized publications for applicants.

Recommendations of ERP:

It is recommended to increase the publication activity of the study programmes implemented by the Forestry Engineering Institute and their achievements; the content, learning environment and the possibility of individual learning paths for students in the most accessible form.

4. RECOMMENDATIONS FOR IMPROVEMENT

Thus, based on the analysis of the documentation, meetings and interviews during the Site-Visit to NArFU Review Panel made recommendations, which, in its opinion, will be useful for improving the quality of implementation of the study programmes under review. The following is the list of recommendations:

1. Despite the priority of goals and objectives of the development of NArFU Programme for Development in terms of the North and Arctic areas, identified in the Strategy for the Development of NArFU, NArFU management is recommended to develop the concept of the Forestry Engineering Institute (programme) for the Forestry Engineering Institute and for study programme "Forest Management" in the field of monitoring, protection, and restoration of forests; to define more clearly the role and place of the institute in the university structure, with specific goals, and objectives. It is necessary to

- involve employers to participate in the development of the concept (of the programme). Information should be open, clear for all stakeholders involved.
2. It is recommended to establish a system of quality, not only at the university level, but also at the level of Forestry Engineering Institute. It is advised to develop criteria to assess competency, and the requirements for the final attestation of graduates. It is necessary to increase external assessment, for example, by the student community (today it is not enough represented in the Academic Council).
 3. It is recommended to establish an alumni association, the board of trustees to address the issues of the employment, to organize internships and to assess the quality of training.
 4. It is recommended to strengthen the involvement of students and employers in the development of course syllabi for the study programmes, courses and curricula. It is advised to determine criteria and indicators for assessing the effectiveness of the study programmes.
 5. It is recommended to improve information content, openness, availability, as well as students' motivation to research, to participate in international exchange programmes, to improve the capacity and availability of learning foreign languages.
 6. It is recommended to expand international partnerships in education and research. It is advised to create awareness about opportunities to participate in international projects for graduate students, and teachers of the Forestry Engineering Institute, to create conditions for learning foreign languages.
 7. It is recommended to employ teachers of leading universities, institutes of applied sciences, representatives of industry of Russia and foreign partners to share experiences, and deliver lectures.
 8. It is recommended to develop and implement a system of motivation of the teaching staff, which will include all areas of activity of the faculty.
 9. It is recommended to implement a system of assessing the quality of teaching, including not only the evaluation of the content, but also the evaluation of the level of consumer - students access to knowledge. It is advised to use surveys, which should be done on a regular basis. It is necessary to increase the number of training of the teaching staff at the leading foreign and Russian companies for the purpose of sharing experiences, as well as improving the level of teaching.
 10. It is recommended to improve the level of equipment of the institute's laboratories with modern equipment, training facilities, which will correspond to the level of a European university.
 11. It is recommended to improve the classroom fund, primarily for laboratory work.
 12. It is recommended to adjust in accordance with sanitary norms the conditions of internship in the training-experience forest enterprise.
 13. The university/institution management should pay attention to creating a favorable environment for the education of students on the basis of feedback from the student community.
 14. It is recommended to create and use better electronic resources (education, information and reference ones, etc.).

15. It is recommended to inform the public through the media about the events of various levels, as well as about the results and achievements of the study programmes.

5. CONCLUSION

As a result of the external review the External Review Panel believes that the study programmes under review "Reproduction and processing of forest resources" to a great degree is in compliance with the standards and criteria of public accreditation. Substantial compliance was established for all standards (Annex D).

The External Review Panel recommends the Accreditation Board of NCPA to accredit the study programmes 250201.65 "Forestry", 250100.62 "Forest Management", 250100.68 "Forest Management" in the study line "Reproduction and Processing of Forest Resources" within the established time limit of 6 years.

As the strengths of the study programme, the Panel wants to note a high level of qualification of the teaching staff, the high availability of methodological literature, high evaluation of the results of training by the professional community.

Areas for improvement are reflected in paragraph 5 of this report.

On behalf of the ERP:



Svetlana V.Avdashkevich

Vice-Chair of the External Review Panel

ANNEX A

FSAEI HPE "NORTHERN (ARCTIC) FEDERAL UNIVERSITY NAMED AFTER M.V. LOMONOSOV"

Public Accreditation of the study programmes:

	Study Programme, specialty, gained as a result of mastering the study programme of higher professional education			Year when the programme started	Length of the programme according to SES (FSSES)
	Code	Title	Level of education, qualification		
1	250000	Reproduction and Processing of Forest Resources			
1.1	250201.65	Forestry	Specialist	1929	5 years
1.2	250100.62	Forest Management	Bachelor	2008	4 years
1.3	250100.68	Forest Management	Master	2009	2 years

ANNEX B**PROGRAMME OF THE SITE-VISIT OF THE EXTERNAL REVIEW PANEL**

Time	Event	Participants	Venue
11 November, Sunday			
19.00	First meeting of the members of the ERP with the coordinators of the review of the study programmes of NArFU		Conference-Hall Hotel "Dvina"
12 November, Monday			
9.45	Arrival at NArFU		
10.00 – 11.00	Meeting of the ERP with the University Management and persons responsible for the accreditation	Chancellor, Vice-chancellors, Head of the Department for the Study Process, Director of the Center for Licensing, Accreditation and Analysis of the Main Activity of the University, two External Review Panels (ERP)	17 Northern Dvina shore drive, main building, r. 1220
11.00 – 11.30	External meeting of the Panel	ERP	17 Northern Dvina shore drive, main building, r. 1421
11.30 – 12.30	Meeting with the persons responsible for the accreditation of the study programmes and chairs of the departments	Director of the Institute, deputies, chairs of the major departments, ERP	17 Northern Dvina shore drive, main building, r. 1416
12.30 – 13.00	External meeting of the Panel	ERP	r. 1421
13.00 – 14.00	Lunch		Banquet Hall (main building)
14.00 – 15.00	Excursion around the University (university buildings, library etc.)	ERP	Buildings of NArFU
15.00 – 16.30	Work with documents/visiting classes (if members of the ERP wish)	ERP	r. 1421
16.30 – 17.30	Meeting with Alumni	Alumni, ERP	r. 1416
17.30 – 18.00	External meeting of the Panel	ERP	r. 1421
13 November, Tuesday			
9.45	Arrival at NArFU		
10.00-11.00	Meeting with the faculty	Faculty, ERP	r. 1416
11.00 – 11.30	External meeting of the Panel	ERP	r. 1421
11.30 – 12.30	Meeting with the students	Students, ERP	r. 1416
12.30 – 13.00	External meeting of the Panel	ERP	r. 1421
13.00 – 14.00	Lunch		Banquet Hall (main building)

Time	Event	Participants	Venue
14.00 – 14.30	Meeting with the postgraduate and doctoral students	Postgraduate students, doctoral students, ERP	r. 1416
14.30 – 16.30	Work with documents/visiting classes (if members of the ERP wish)	ERP	r. 1421
16.30 – 17.30	Meeting with the employers	Employers, ERP	r. 1416
17.30-18.00	External meeting of the Panel	ERP	r. 1421
14 November, Wednesday			
9.45	Arrival at NArFU		
10.00 – 12.00	External meeting of the Panel: drafting the results of the Site-Visit, oral report of the results	ERP	r. 1421
12.00 – 13.00	Final meeting of the ERP with the representatives of NArFU	ERP, representatives of the university management, chairs of the major departments, faculty, students	Main Building r. 1220
13.00 – 14.00	Lunch		Banquet Hall (main building)
	Departure		

ANNEX C

List of the Participants

University Management and persons responsible for the accreditation

	Full name	Position
1	Leonid N. Shestakov	First Vice-Chancellor for Education and Science
2	Elena A. Smyaglikova	Vice-Chancellor for Social Affairs and Educational Work
3	Konstantin G.Bogolitsin	Vice-Chancellor for Scientific Work
4	Lyudmila A. Vorozhtsova	Deputy Vice-Chancellor for Education and Science
5	Natalia N. Kukarenko	Deputy Vice-Chancellor for International Cooperation
6	Lyudmila A. Zarubina	Deputy Vice-Chancellor for International Cooperation
7	Alexander E.Gildebrant	Deputy Vice-Chancellor for Strategic Planning
8	Svetlana A. Sterleva	Head of the Financial-Economic Department
9	Nadezhda V.Shaligina	Director of the Center for Licensing, Accreditation and Analysis of the Main Activity of the University
10	Julia V.Churkina	Head of the Department for the Study Process

ANNEX D

THE SCALE OF ASSESSMENT PARAMETERS OF THE STUDY PROGRAMME

	NCPA Standards	Assessment of the study programme			
		Full compliance	Substantial compliance	Partial compliance (needs improvement)	Noncompliance
1.	Policy (mission, vision) and procedures for quality assurance		+		
2.	Approval, monitoring and periodic review of study programmes		+		
3.	Assessment of student learning outcomes (competencies)		+		
4.	Quality assurance of teaching staff		+		
5.	Learning resources and student support		+		
6.	Information system providing effective implementation of the study programme		+		
7.	Public information		+		