

«APPROVED»

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**Development Strategy**  
**TAJIK NATIONAL UNIVERSITY**  
**FOR THE PERIOD OF 2021-2025 YEARS**

Adopted by the decision of the Academic Council of  
TNU on February 26, 2021, protocols No. 8.

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## CONTENT

Introduction .....	2-4
1. University today .....	4-13
2. Analysis of the external environment .....	13-18
3. Analysis of the internal environment .....	18-20
4. Analysis of the external and internal environment based on SWOT analysis .....	20-33
5. Strategic development priorities (based on SWOT analysis) .....	33-36
6. Basic tools and principles for the implementation of the TNU Development Strategy .....	36-38
7. Roadmap for the implementation of key measures of strategic development of TNU for 2021-2025. ....	39-46
8. Dynamics of target indicators of the efficiency of TNU development for 2021-2025. ....	47-48
9. List of abbreviations and acronyms .....	49

## INTRODUCTION

The Development Strategy of the Tajik National University for 2021-2025, being a logical continuation of the "Development Program of the Tajik National University for 2009-2019", is based on the "National Development Strategy of the Republic of Tajikistan for the period up to 2030".

The need for the formation of sustainable competencies and innovations is becoming a fundamentally important condition for ensuring real and long-term progress, which implies improving the quality of education, introducing innovations into higher education, ensuring the effectiveness of science, and offering innovations to the production sector.

Long-term prospects for the development of the nation's higher education system should be based on the following strategic principles and requirements - the quality and scale of professional education should guarantee the competitiveness of the nation's economy. Tajik National University (TNU), as the leading of the nation's higher education, should be at the vanguard of these transformations.

**Mission.** Tajik National University, as a principal educational and scientific center of the Republic of Tajikistan, ensures the continuity of the Tajik intelligentsia, develops the Tajik language and culture, and contributes to the development of education, research and technology. The mission of the university is to form and develop national human capital - competitive and specialists in-demand for the national and international labor markets, and to encourage in succeeding the strategic goals of the national economy by transferring and increasing knowledge.

**Vision.** Preservation and strengthening role and position of the leading educational and scientific center of the Republic of Tajikistan. Strengthen the position of the university in the TOP-5 universities in the Central Asian region.

### **Purpose: Transformation from classical university into research university**

#### **Target guidelines for TNU development:**

1. Formation of an effective and competitive educational system based on the application of modern approaches and technologies to the organization and implementation of the educational process.

2. Increasing the efficiency of scientific and innovative activities in priority areas of development of science, technology and technology in the Republic of Tajikistan.

3. Improving the efficiency of the TNU management system, incl. by introducing methods of strategic management, quality management, improving the audit mechanisms of the educational process and scientific research, as well as implementing new initiatives by introducing project-oriented management.

4. Strengthening educational work among teachers and students, educating young people in the spirit of humanism, respect for universal values, national traditions and

patriotism.

5. Ensuring optimal conditions for training and work of students and staff of TNU by completing the next stage of creating a university campus "Student Town", as well as through network integration with leading universities, in particular, within the CIS Network University, SCO University, strengthening interaction with enterprises and organizations of Tajikistan, the university community of Central Asia, the CIS and the SCO, as well as non-CIS countries.

6. Improvement of the international image of the university and further internationalization of education and research.

7. Improving the mechanism of interaction with employers in order to train qualified personnel for the needs of the national economy.

8. Building an effective system of promotion and marketing of TNU to expand the geography and sphere of influence, strengthen its position in the international arena, attract additional funds for the development of the University.

9. Improving the financial performance of the university through more efficient use of available resources, commercialization of scientific achievements, search and finding new sources of financial receipts, including, taking into account the effective use of the export of educational services.

10. Improving working conditions, stimulating the fruitful activity of the teaching staff, ensuring the level of salaries of employees up to the average level in Central Asia.

TNU development strategy for the period 2021-2025 reflects the main trends in the development of higher education in the world and in the country, meets the requirements of the socio-economic development of the Republic of Tajikistan, the National Development Strategy of the Republic of Tajikistan for the period up to 2030, innovative reform of education and science in the context of the National Concept of Education in the Republic of Tajikistan, "The Concept for the Development of Vocational Education in the Republic of Tajikistan" and the "Program of Innovative Development of the Republic of Tajikistan for 2011-2020", summarizes the implementation of the "State Strategy for the Development of the Labor Market in the Republic of Tajikistan for the Period until 2020", "The Program for the Development of Natural, Mathematical and Technical sciences for 2010-2020 ", and also takes into account " Twenty years of study and development of natural, exact and mathematical sciences in the field of science and education, 2020-2040. " and etc.

To achieve the goals set, the following tasks are expected to be solved:

- ✓ improving the quality of teaching and educational activities;
- ✓ development and improvement of the quality of research and innovation activities;

- ✓ expansion of international cooperation;
- ✓ improving educational and social work, involving young people in the socio-economic development of the country;
- ✓ development of infrastructure and implementation of the latest information technologies in the educational process, and administration of the university;
- ✓ increasing the efficiency of financial and economic activities.

### **I. University today**

TNU in the XXI century has strengthened its leadership in the system of higher education of the Republic of Tajikistan, forms the image of the university education of the republic, implements a system of continuous professional education, expands educational programs of a specialist and bachelor's degree, implements educational programs for master's and doctoral PhD programs, trains specialists for many sectors of the national economy as well as for the countries of Central Asia, the CIS and the SCO. TNU has introduced a credit training system that corresponds to the Balon system for the following educational programs:

- bachelor's degree - 120
- specialty - 5
- Master's programs - 84
- PhD doctoral studies - 103.

The educational activity of the university in the areas of higher professional and postgraduate education has been established at 19 faculties: mechanics and mathematics, physics, chemistry, biological, geological, pharmaceutical, medical, historical, legal, economics and management, accounting and digital economy, financial and economic, philological, journalism, Russian philology, languages of Asia and Europe, philosophy, international relations and the joint faculty of TNU and universities of the Republic of Belarus, which unite 118 departments, incl. 111 specialized departments and 7 university-wide.

At TNU also function:

- ✓ Research Institute
- ✓ Institute for Advanced Training of Teachers of Higher Educational Institutions of the Republic of Tajikistan
- ✓ Confucius Institute
- ✓ Lyceum of natural and mathematical direction
- ✓ Technological park.

TNU also has:

- ✓ Scientific library (more than 1 million copies of books, magazines and newspapers, of which more than 910 thousand books, including 1672 ancient manuscripts)

- ✓ 103 teaching laboratories
- ✓ 14 research laboratories
- ✓ 10 internet centers
- ✓ 39 computer labs
- ✓ 13 language laboratories
- ✓ Language Learning Center
- ✓ Center for Biotechnology
- ✓ Publishing, Printing and Translation Center
- ✓ Center for testing, information technology and distance learning
- ✓ Center for Sociological Research and Monitoring
- ✓ Folk ensemble "Navruz".
- ✓ Preparatory course
- ✓ 4 sports halls
- ✓ 3 educational and practical bases
- ✓ Dispensary
- ✓ Medical center.

TNU owes its success to the highly qualified teaching staff, of which it is justifiably proud. The scientific and pedagogical potential of TNU is represented by 1,625 teachers, incl. 1,310 full-time teachers, of which:

- ✓ 12 academicians of the National Academy of Sciences of the Republic of Tajikistan
- ✓ 13 Corresponding Members of the National Academy of Sciences of the Republic of Tajikistan
- ✓ 178 Doctors of Science
- ✓ 545 candidates of sciences.

More than 55.0% of the total number of staff teaching staff have an academic degree, incl. 13.6% - Doctor of Science degree. Over the past 3 years (2018-2020), 377 candidates and 47 doctoral dissertations have been defended by teachers and university staff, i.e. annually, university professors defend an average of 125 candidates and 15 doctoral dissertations.

There are 25,736 students studying at TNU, of which 18,782 students (73%) are enrolled in full-time studies (as of 12/30/2020). Of the total number of students, 9,461 (36.8%) are women. There are 1,417 undergraduates and PhD students studying at TNU, which is 5.5% of the total number of university students. Of the total number of university students, 245, or 0.9%, are citizens of foreign countries. Citizens of Afghanistan, Kazakhstan, Kyrgyzstan, Pakistan, Russia, Turkmenistan, Uzbekistan, etc. study at TNU.

TNU since 2014 (the year the rating was founded) has consistently ranked first in the rating of higher educational institutions of the Republic of Tajikistan,

conducted by the Agency for Supervision of Education under the President of the Republic of Tajikistan, has repeatedly been recognized as the "Best University of the Republic of Tajikistan", according to the assessment of the non-state publication "Tajikistan" ...

TNU has partnership agreements with more than 100 enterprises and organizations, as well as state institutions of the Republic of Tajikistan, incl. The General Prosecutor's Office of the Republic of Tajikistan, the Supreme Court of the Republic of Tajikistan, the Ministry of Internal Affairs of the Republic of Tajikistan, the Ministry of Education and Science of the Republic of Tajikistan, the National Academy of Sciences of the Republic of Tajikistan and its institutes, the Center for Strategic Research under the President of the Republic of Tajikistan, JSC "Tajik Aluminum Company", JSC "Naftu Gas" , OJSC "Kombinati Shiri Dushanbe", OJSC "Shirin", State Security Service of the Republic of Tatarstan "Amonatbonk", OJSC "Orienbonk", State Institution "Republican Medical Complex" Istiklol ", NIAT" Khovar ", etc., in which students undergo production and pre-diploma practices, and then find a job.

### **Education**

In the period from 2016 to 2020, 14 new specialties were opened at TNU, incl. 13 undergraduate programs and 1 specialist program. Much attention is paid to the development of educational master's programs. In the 2020-2021 academic year, 1,305 undergraduates study at TNU on 65 master's programs.

From 2016 to 2020, the state order for training specialists in budgetary groups increased from 943 to 1,247, or by 32.2%.

In 2016, a joint faculty of TNU was created with universities of the Republic of Belarus, where with the Belarusian State University (since 2016), the International Environmental Institute named after I. HELL. Sakharov at the Belarusian State University (2017), the Belarusian State Technological University (2018) are successfully implementing joint educational bachelor's programs on the principle of 2 + 2 (2.5), the first graduates of which are employed at enterprises and organizations of Tajikistan.

Within the framework of the Consortium of the CIS Network University, which unites 38 universities, TNU implements 6 joint master's programs on the 1 + 1 principle. Also within the SCO University, which unites 74 universities, TNU implements 5 joint master's programs.

TNU expands the network of basic departments and methodological rooms at enterprises and institutions. Much attention is paid to strengthening the infrastructure of the basic departments at medical institutions (9 departments). There are 11 educational and methodological rooms created at secondary schools in Dushanbe that function effectively.

Over the past five years (2016-2020), the employment rate of graduates of pedagogical specialties of TNU was 95%. According to the monitoring of the employment of graduates of pedagogical specialties and graduates in the field of "Informatics" of universities of the Republic of Tajikistan, conducted by the Ministry of Education and Science of the Republic of Tajikistan in 2019-2020, 98% of TNU

In 2018, TNU successfully passed the state accreditation of the educational programs being implemented and received the corresponding certificate for a period until 2023.

### **The science**

TNU is the leading scientific organization of the Republic of Tajikistan. In TNU, within the framework of research topics, active research work is being carried out. In 2010, Academician Nusrat Radjabov, professor of the Faculty of Mechanics and Mathematics, became a laureate of the Interstate Prize of the CIS countries "Stars of the Commonwealth". In 2004, 2005, 2007 by the decision of the board of the American Biographical Institute N. Rajabov was awarded the title of "Person of the Year"

From 2014 to 2019, the university's female scientists have won gold medals at the annual international exhibitions and forums of women inventors held in South Korea.

In the period from 2010 to 2020. more than 30 young scientists of the university, who have achieved high results in the field of science and technology, were awarded the State Prize named after Ismoil Somoni.

The publication activity of the teaching staff of the university increased 1.9 times, from 2,579 publications in 2011 to 4,828 publications in 2020, incl. publication activity in scientific journals indexed in the information and analytical system of scientific citation Scopus and Web of Science increased 5 times.

Within the framework of international projects, university scientists conduct joint research with partners from the University of Bergen (Norway), the Max Planck Institute of Chemistry (Germany), etc. To train highly qualified personnel, the university cooperates with leading research centers of the Russian Federation, China, Belarus and other countries.

For the period from 2010 to 2019. the Olympic team of TNU invariably took the first place in the student Olympiads of the Republic of Tajikistan. The level of participation in international competitions and olympiads is high: first places in international mathematical olympiads in the cities of Mogilev (Belarus), Khorezm (Uzbekistan).

The volume of research funding has grown several times. About 8.6 million somoni were spent on the purchase of measuring instruments, chemical reagents,



biologically active substances and conducting scientific research. The volume of research and development work carried out at the Research Institute of TNU has doubled - from 46.9 thousand somoni in 2011 to 91.7 thousand somoni. in 2019 for 1 research work.

The number of dissertation councils increased from 7 to 21. An important achievement of the university in the training of scientific and scientific-pedagogical personnel is the preservation of dissertation councils for the defense of candidate and doctoral dissertations of the Higher Attestation Commission of the Russian Federation. In general, as of December 2020, 21 dissertation councils in 43 specialties functioned at TNU. The efforts made have doubled the defense of candidate and doctoral dissertations in dissertation councils - from 68 (including 8 doctoral dissertations) in 2016 to 131 (including 15 doctoral dissertations) in 2020. In general, in the period from 2016 to 2020, 64 doctoral and 487 master's theses were defended in the dissertation councils of TNU.

The effectiveness of postgraduate studies has increased 2.5 times (from 19% in 2010 to 46.9% in 2020).

TNU occupies a leading position among universities and scientific institutions of the Republic of Tajikistan, which are most active in patenting the results of their intellectual work.

A great achievement is the creation of a printing house and the establishment of publishing activities. Today at the publishing center there are 4 series of the scientific journal "Vestnik TNU", 2 series of the scientific journal "Science and Innovation", scientific journals "Legal Life", "State Science" and "Tajikistan: Economics and Management".

### **International activity**

The development of international scientific and educational relations, an increase in the number and expansion of the geography of foreign students and, in general, the adoption of effective efforts in the internationalization of education and science is one of the main priorities of the university. Over the past 5 years (2016-2020) TNU has concluded cooperation agreements and memorandums of understanding with 186 universities and research centers of foreign countries, while the total number of foreign partners is 289 units.

International activity in recent years has become one of the important areas of work of the university. Conducting joint research, implementing joint educational programs for bachelor's and master's degrees, and in general, diversified interuniversity cooperation with foreign partners has a steady dynamic of expansion and deepening. TNU has partnerships with such leading universities in the world as:

- Moscow State University named after M.V. Lomonosov (Russia)
- Peoples' Friendship University of Russia (Russia)
- Xinhua University (China)
- Peking University (China)
- Kabul University (Afghanistan)
- Belarusian State University (Belarus)
- Eurasian National University named after L.N. Gumilyov (Kazakhstan)
- University of Porto (Portugal)
- University Paris 1 Pantheon Sorbonne (France)
- Masaryk University (Czech Republic)
- International Islamic University (Pakistan)
- Philips University Marburg (Germany)
- Jagielon University (Poland), etc.

### **TNU educational cluster**

In the structure of TNU, a lyceum, preparatory courses, the Institute for Advanced Studies of University Teachers of the Republic of Tajikistan, the Confucius Institute, the Russian Center, and the Center for the Study of Languages are successfully functioning, thereby ensuring the presence of the university in both pre-university and postgraduate education.

Presently 348 schoolchildren study at the natural and mathematical lyceum at TNU. Over the past 5 years (2016-2020), all 100% of the graduates of the Lyceum entered the universities of the Republic of Tajikistan and foreign countries. Lyceum students of the university regularly take prizes at city and republican Olympiads among schoolchildren.

The Institute for Advanced Training of Teachers of Higher Educational Institutions of the Republic of Tajikistan at TNU was established by the Decree of the Government of the Republic of Tajikistan in 2011. Every year more than 1200 teachers of universities and colleges of the Republic of Tajikistan take advanced training courses. IATTHEIRT at TNU since 2016 also organizes field courses for teachers of regional universities, in particular, in the cities of Bokhtar, Khujand, Khorog, Kulob, Rasht district.

**The Confucius Institute at TNU**, created in 2009 with the support of the Central Office of the Confucius Institute (Hanban) and in partnership with Xinjiang Normal University, has become an important center for the study of Chinese language and culture in a short period. The Confucius Institute at TNU in 2011, 2012 and 2018 was recognized as the "Model Confucius Institute" among more than 500

Confucius Institutes in the world. The Confucius Institute at TNU has a wide network of representative offices and centers in Dushanbe and the regions of the republic, coordinates, provides methodological assistance and presents native-speaking teachers to other educational institutions of the republic.

**Since 2010**, the Russian Center in TNU has been operating, created with the assistance of the Russian World Foundation. The Russian Center of TNU is focused on the popularization of the Russian language, assists in improving the qualifications of teachers of the Russian language and methodological support of schools, colleges and universities of the republic.

**The Centre for the Study of Languages** specializes in teaching the Tajik language to employees of diplomatic missions of foreign states in the city of Dushanbe, as well as teaching Tajik and Russian languages to foreign researchers engaged in scientific research in Tajikistan. Over the past 5 years (2016-2020), more than 250 foreign citizens from China, USA, Czech Republic, Slovakia, Ireland, Great Britain, Poland, Saudi Arabia, China, Pakistan, India, Iran, etc.

### **Extracurricular activities**

TNU occupies a special place in the educational, scientific and social life of Tajikistan. The contribution of TNU to the education of scientists and scientists-managers, managers of education and science and many other branches of the national economy is also significant. Along with educational and scientific activities, TNU takes an active position in identifying socially significant problems of society, such as environmental issues, improvement of the urban environment, social support for people with disabilities. Students and teachers regularly hold environmental campaigns. TNU patronizes the Republican boarding school of the city of Gissar, rendering assistance to it. TNU built and donated a modern sports ground to the residents of Rudaki Avenue, Ismoili Somoni District, Dushanbe.

An important place is given to the cultural education of students and assistance in the implementation of creative ideas and abilities of young people. The role of the "Navruz" folk ensemble is significant in this matter.

In TNU on October 24-27, 2019, under the auspices of the Asian Association of Universities, the III Student Forum "Tajikistan-Asia-2019" was held, in which more than 250 students and leaders of youth movements of universities-members of the association from Kazakhstan, Kyrgyzstan, Russia and Tajikistan took part, and also from Afghanistan and Uzbekistan.

### **Infrastructure**

The total area of the university buildings is 102 thousand m<sup>2</sup>. At the beginning of 2021, a new 18,164 m<sup>2</sup> building was commissioned for the Faculties of

Economics. Only 3 faculties, a lyceum, a military department and an administrative building of the university will remain outside the campus of the university - "TNU Campus". Also, in 2021, by the 30th anniversary of the State Independence of the Republic of Tajikistan, commissioning is scheduled:

- a new sports complex for 3 thousand m<sup>2</sup>, with an indoor swimming pool measuring 50x21 m.

- a new two-storey building for the Confucius Institute with an area of 8 600 m<sup>2</sup>.

In the period from 2018 to 2020, the heating system of educational buildings and dormitories of the university was completely updated.

TNU has had a printing centre since 2010. In recent years, modern printing equipment has been purchased for the centre. The centre is provided with special computer programs.

### **Information of infrastructure of TNU**

Various information systems are being successfully developed and implemented with the help of IT specialists. Development of digital infrastructure in 2016-2020 characterize the following works and their results:

- ✓ 7 additional servers of information infrastructure were introduced (currently there are only 11);
- ✓ the park of computer and organizational equipment was updated by 27%;
- ✓ developed and implemented an educational portal for distance education [www.fosilavi.tnu.tj](http://www.fosilavi.tnu.tj);
- ✓ a new university website was developed and launched;
- ✓ software has been created for downloading and supporting electronic educational resources in the personal offices of students studying distance learning;
- ✓ An information portal has been created, including personal accounts of bachelors and masters;
- ✓ all articles of the scientific journal "Vestnik TNU" (all four series) from 2009 to the present have been digitized and placed in [www.e-library.ru](http://www.e-library.ru), etc.

### **Development of human resources**

The formation and development of modern human resources is one of the key tasks of the university. The degree of degree of research and teaching staff over the past 5 years has increased from 50.1% in 2016 to 55.2% in 2020, the percentage of doctors of science working at the university has grown from 10.9% to 13.6%. During this period, 9 professors of the university were elected as academicians and

corresponding members of the National Academy of Sciences of the Republic of Tajikistan. The university's policy towards the rejuvenation of scientific and scientific-pedagogical personnel is bearing fruit - the average age of doctors of sciences has decreased from 69 years in 2016 to 58 years in 2020, the average age of candidates of sciences, respectively, from 55 to 48 years.

TNU remains the leading center for the training of scientific personnel for other universities and scientific institutions in Tajikistan and the countries of the region. Over the past 5 years (2016-2020), they completed postgraduate studies, doctoral PhD studies, were engaged in research as an applicant, and subsequently 39 people defended their dissertations, incl. 14 citizens of Afghanistan and 25 citizens of Iran.

TNU strives to remain the most attractive university in Tajikistan in terms of employee salaries. The average salary of teaching staff and employees in 2020, compared to 2016, increased by 35%, and compared to 2010 - almost 3 times (by 288%).

TNU has a family hostel for teachers and staff with 143 comfortable rooms, including 13 one-room, 118 two-room and 12 three-room rooms, supports its functioning and operation.

## **II. Analysis of the external environment**

1. The development priorities of the system of higher education and science of the Republic of Tajikistan, outlined in the “National Development Strategy of the Republic of Tajikistan for the Period up to 2030”, as well as in the “National Strategy for the Development of Education of the Republic of Tajikistan until 2020”, the announcement “Twenty years of the study and development of natural exact and mathematical sciences in the field of science and education, 2020-2040. ” clarify development goals, form additional guidelines and set new tasks for higher education and science in the context of a new strategic goal of the state - the transition from agrarian-industrial to industrial-agrarian type of development.

The modern system of higher professional education of the Republic of Tajikistan, represented by 39 higher educational institutions, completes the transition to the European system of organizing university education by introducing the Bologna system and principles. Higher education is faced with the task of widespread implementation of innovations, primarily in the educational process, scientific research, university management, etc.

The universities of Tajikistan train specialists in more than 300 areas of bachelor's degree and 115 areas of master's degree. Over the years of independence, many institutes have been transformed into universities, including such important

specialized universities in the system of higher professional education as the Tajik Agrarian University named after Sh. Shotemur, the Tajik State Medical University named after Abuali ibn Sino, the Tajik Technical University named after academician M.S. Osimi, Tajik State Commercial University, Tajik Technological University, as well as such large regional universities as Khujand State University named after B.G. Gafurov, Kulyab State University named after Abuabdullo Rudaki, Bokhtar State University named after Nosir Khusrav and the Russian-Tajik (Slavic) University, established in 1996, are worthy competitors of the Tajik National University in the educational services market of the republic. In these universities, advanced scientific and pedagogical schools have been formed, there is an educational and laboratory base, modern methods and forms of training specialists are used. Some universities are centres of training, retraining and advanced training of personnel in the profile of the university.

Institutions of higher professional education in the Republic of Tajikistan in the context of globalization of world economic relations and high mobility of human resources are in close competition with universities of foreign countries, first of all, Russia, China, Belarus, Kazakhstan, partly the USA, other countries of Asia and Europe. On average, about 11 percent of students (out of the total number of students who are citizens of the Republic of Tajikistan), mostly the most advanced, enter foreign universities to obtain a bachelor's degree (with the exception of 2020 due to the COVID-19 pandemic and restrictions on international movements). This situation requires the country's universities to make additional efforts to further increase their competitiveness, incl. at the regional and international levels.

In the NDS-2030, higher education is tasked with taking into account the needs of the labour market more fully. Higher education, following the goals of ensuring the sustainable development of the state and society, guided by the state strategy for the transition to an industrial-agrarian type of development, taking into account the processes of informatization and digitalization of the world economy, in the next decade will continue transformations aimed at increasing the correspondence of education and training, research and scientific research to the needs of the economy and the labour market, as well as the growth of accessibility and openness through the digitalization of the services provided. TNU will continue its policy of opening new specialties, especially in technical, engineering, medical and natural-applied areas of training for bachelor's and master's degrees, incl. implementation of joint educational programs with foreign partners. TNU plans to increase practical hours in informatics in all specialties.

In modern conditions of development, primarily the acceleration of technical and technological innovations, the requirements of the labor market are changing, which poses new challenges for higher professional education. The development and

implementation of postgraduate and additional education programs, the development of special educational programs for higher education under the order of a specific enterprise (organization) is becoming a separate area of activity of universities. TNU has extensive experience in training personnel for second higher education programs, highly qualified teaching staff and close ties with large employers, which allows the development and implementation of new curricula of higher professional education. It is estimated that the need for retraining for second higher education programs in the coming years will maintain the dynamics of an annual 7-10 percent growth. In the future, an increase in students enrolled in second higher education programs at TNU is expected from 940 students in the 2019-2020 academic year to more than 1,300 students in the 2024-2025 academic year.

1. Modernization of the national potential of scientific research and development, the development of national scientific schools, their orientation towards the implementation of priority areas of scientific research in the Republic of Tajikistan, assistance in providing innovative and technological breakthroughs. The reform in the system of higher professional education in the Republic of Tajikistan has mainly affected the educational process, significantly transforming it. However, transformations in research policy, financing of science, and commercialization of scientific achievements are still lagging behind the requirements of the time.

2. Modernization of the national potential of scientific research and development, the development of national scientific schools, their orientation to the implementation of priority areas of scientific research in the Republic of Tajikistan, assistance in ensuring innovative and technological breakthrough. The reform in the system of higher professional education in the Republic of Tajikistan has mainly affected the educational process, significantly transforming it. However, transformations in research policy, financing of science, and commercialization of scientific achievements are still lagging behind the requirements of the time.

3. NDS-2030 defines human capital and its backbone components - education and science - as the main factor of the country's innovative development, as the most important conditions for ensuring national security and increasing the competitiveness of the national economy. In this area, it is necessary to work proactively and implement a large-scale implementation of international educational standards in the system of higher professional education. It is planned to strengthen the role of the state in the selection and support of priority areas of science and technology. The most important component of ensuring the socially-oriented innovative development of the republic is the strengthening of the personnel and scientific potential of the country. The solution to the problem of meeting the growing needs of the economy in qualified specialists with knowledge of foreign languages and the ability of an advanced user of information technologies is

entrusted to the higher education system.

4. With the departure of the era of the planned economy with its distribution system of university graduates, there was no worthy alternative to managing the career of young specialists entering the labour market. The actually functioning distribution system of graduates covers only graduates of pedagogical and medical specialties who studied on a budgetary basis. Annually, the universities of the republic graduate more than 40 thousand specialists (44.6 thousand - in 2018, 43.2 thousand - in 2019), of which more than 87% get a job in the first year after graduation, including. get a job as a labour migrant abroad. However, a significant part of university graduates is employed not in their specialty.

The steady demographic growth in the early 2000s at the level of 2.3-2.4% per year (in recent years this indicator has been at the level of 2.1%) explains the high competition among university entrants in the republic in our time. Higher education remains in demand among graduates of general education schools, but the target - coverage of 30% of school graduates with higher education institutions - has not yet been achieved. The gross rate of population coverage with higher education in 2016 is 28%. This justifies the need to build the capacity of the republic's universities to enrol a larger number of students, both for existing and newly opened specialties.

The labour market requires more competent graduates from higher professional education. The latter, in turn, requires the widespread introduction of practice-oriented classes in the educational process, pay more attention to changes in the labour market, and respond flexibly to them. The task of accelerating the industrialization of the country's economy and thus, the transition from the agrarian-industrial type of development to the industrial-agrarian one poses the task of higher education to increase the number of places for training specialists in natural science and engineering. Some of the implemented SES undergraduate and graduate programs require modernization and updating with the participation of employers in order to expand the practice-oriented training of students.

Modern realities of higher professional education testify to the weak involvement of business (employers) in the educational process. The involvement of parents in the educational process of higher education institutions is limited in most cases by the educational process and monitoring student attendance.

5. Ensuring the competitiveness of higher education requires widespread use of e-learning. The replacement of distance learning by distance learning in 2017 made it compulsory for higher education institutions to develop and place electronic educational resources (EER) in the university's Internet resources.

6. The integration of the higher education system of the Republic of Tajikistan with the education systems of other countries is of a local nature. At the same time,



the universities of the republic do not sufficiently use the created conditions for the internationalization of education. The effectiveness of the implemented bachelor's degree programs between the universities of the Republic of Tajikistan and the Republic of Belarus, due to the noticeable difference in the annual cost of training one student in the cities of Dushanbe and Minsk, is less than 30%. The contingent of joint educational master's programs being implemented within the framework of the CIS Network University and the SCO University is insignificant. Academic mobility within the framework of the Erasmus + program with universities of the European Union and other partner universities within the framework of bilateral agreements is rare.

During the years of independence, the academic mobility of scientific and pedagogical workers has significantly decreased. Universities poorly use the conditions of intra-republican academic mobility of scientific and pedagogical workers, which requires the development of mechanisms for its activation. There is little funding for the academic mobility of scientific and pedagogical workers to foreign universities and research centres.

One of the strategic guidelines for the development of the republic, approved in the NDS-2030, is the intensification of cooperation along the South-South line. The latter sets before the university community of the republic the task of enhancing educational and scientific cooperation with universities and research centres in South and Southeast Asia, especially in technical, engineering, technological and economic areas.

### **III. Analysis of the internal environment**

Tajik National University as an institution of higher professional education of the Republic of Tajikistan, which has a special - "national" - status, remains the flagship of higher professional education of the republic and one of the leading universities in Central Asia. Along with many achievements and successes, the university has a number of problems, the solution of which will give a new impetus to its development. The development trajectory in the near future presupposes further reforming and structural transformation of the university in the direction of its internationalization.

TNU, while remaining a classical university, needs transformation towards a large research university of a regional scale, and in certain areas of research - to become a recognized research university in the world. At the same time, the university does not absolve itself of the responsibility to be a leading center for training personnel with a stable national identity.

The ongoing reforms in the higher education system of the republic have largely covered the educational process, and the management system of the university, the organization and funding of scientific research, the strengthening of the image and promotion of the university brand require further reform and improvement.

The area of scientific schools of the university, such as differential equations, mechanics, polymer physics, theoretical physics, chemistry of amino acids and peptides, coordination chemistry, biochemistry, botany, mineralogy, engineering geology, history of the Tajik people, Tajik linguistics and literary studies, Arabic linguistics, Indology, modern Persian literature, regional economics, accounting, agricultural economics and sustainable economic development, civil law, criminal law cover not only the scale of the republic, but also went beyond its borders.

TNU is the only university in the republic in such areas of training bachelors as mechanics, computer security, meteorology and climatology, astronomy, chemical technology for the production of inorganic substances, chemical technology for the production of organic substances, biomedical science, archeology, forensic examination, copyright protection, language Hindi, Pashto language, Urdu language, information and analytical activities in international relations, foreign policy and diplomacy, international journalism, WEB journalism, foreign investment management, statistics, economic cybernetics.

The most important factor that determines the level of competitiveness of a university in a permanently changing environment is the provision of quality education, which is based on the high qualifications of teachers, the availability of a material base, programs for a student, the interaction of the university with organizations and enterprises. The existing personnel potential and educational infrastructure allow TNU to remain the largest university in the republic and continue to offer the labor market qualified specialists with knowledge of at least two foreign languages and advanced users of modern information technologies in more than 100 areas of training, competitive both in the domestic and foreign markets. ... However, taking into account the needs of the educational services market both within the country and in the Central Asian region, as well as, based on the implementation of the university's internationalization policy, the potential for the implementation of bachelor's and master's educational programs in English and Russian remains underutilized.

The work on improving the competitiveness of its graduates in the labor market is gaining great importance for the university. This is ensured, first of all, by the quality of training of graduates that meets the needs of employers, which has a positive effect on the employment of university graduates. In order to assist in the employment of graduates in 2019, the specialized structural unit of the university -

the Department of Practice and Work with Young Professionals, was transformed into a Career Center, which was assigned new tasks based on the requirements of the labor market and increasing competition in the market for specialists with higher education.

TNU remains the largest university in the republic, annually graduating more than 4,000 qualified specialists to the labor market. The issue of increasing the competence of graduates, the practical orientation of the educational process becomes the main issue in the educational activities of the university. The solution to this problem largely depends on the organization and practice of students at enterprises and organizations in their specialty. TNU currently has more than 100 contracts with government departments and institutions, enterprises and organizations of the private sector for students to practice. Also TNU, on the basis of medical institutions, has created specialized departments, where not only practice is organized for students of the medical faculty, but also the teaching of full-fledged theoretical studies is organized.

TNU is one of the largest universities in the republic, where future teachers are trained. At present, methodological rooms have been organized on the basis of secondary schools in the city of Dushanbe. The University has experience in creating banking classrooms on its basis with the assistance of banking institutions. The next step in this direction should be the creation of basic departments at enterprises and organizations of other spheres of the national economy, as well as the attraction of private companies to create scientific and educational laboratories, classrooms, etc.

The provision of comfortable dormitories on the territory of the University campus "Campus" and social security of students (personal scholarships, benefits, scholarships of the Academic Council of TNU, etc.) make the university even more attractive for nonresident students, applicants from Central Asia and far abroad.

#### **IV. Analysis of the external and internal environment based on the**

**SWOT** analysis carried out by the working group from December 2020 to January 2021. The analysis was carried out on the basis of studying the decisions of the Academic Council of TNU for the period from 2010 to 2020, the annual reports of the rector of the university "On the results of the university's activities and plans for the future" for the specified period. The members of the working group held a number of meetings with leading scientists and experienced employees of the university on topical issues and priority areas of development of the university. The working group also used the research results of TNU applicants - Sitora Ganieva and Ravshan Abdullozoda. The strengths and weaknesses of the university are presented in Table 1.

**Table 1**

<b>Direction of activity</b>	<b>STRENGTHS</b>	<b>WEAK SIDES</b>
Institutional framework and governance	<ul style="list-style-type: none"> <li>- the only university in Tajikistan with a special - national, status;</li> <li>-image of the main university of Tajikistan;</li> <li>-state support in key areas of activity;</li> <li>-strategic planning of the development of the university (use of targeted programs);</li> <li>-high demand from applicants, incl. on a contract basis;</li> <li>-image of a successful organizer and experience in holding large symposia, conferences, festivals, summer schools, incl. international;</li> <li>-optimal gender balance, participation of women in all areas of the university;</li> </ul>	<ul style="list-style-type: none"> <li>- the need to apply the "manual control" method;</li> <li>-inflexible organizational structure of management;</li> <li>- lack of marketing service in the organizational management system of the university;</li> <li>-Excessive centralization of management, the complexity of the workflow scheme, the presence of bureaucratic barriers;</li> <li>- lack of proper control over the processes of employment and career growth of graduates;</li> </ul>
<b>Educational activities</b>	<ul style="list-style-type: none"> <li>-a wide range of areas of training;</li> <li>-experience in the development of practice-oriented programs;</li> <li>-implementation of the full cycle of training personnel with higher education (bachelor's, master's, doctoral PhD);</li> <li>-implementation of educational bachelor's programs in Tajik, Russian and English;</li> <li>-availability of additional education programs: pre-university (lyceum), postgraduate (IATTHEIRT) and additional (CIL, Confucius Institute), etc.</li> </ul>	<ul style="list-style-type: none"> <li>-insufficient material and technical support of the educational process for the large-scale implementation of interactive forms of teaching and learning;</li> <li>-low level of the passing score when applying to contractual groups in certain specialties;</li> <li>- outdated educational and laboratory facilities in certain areas of training;</li> <li>-increasing the teaching load of the teaching staff;</li> </ul>

		<ul style="list-style-type: none"> <li>- imperfect mechanisms and ineffective control over the quality of education;</li> <li>- limited opportunities for internships and advanced training of teaching staff in leading universities and research centers of the world;</li> <li>- underdevelopment of student-centered learning technologies (students' choice of individual educational learning technologies), etc.</li> </ul>
<p><b>Scientific and innovative activity</b></p>	<ul style="list-style-type: none"> <li>-the presence of scientific schools in a number of areas;</li> <li>- availability of scientific and educational research centers;</li> <li>-availability of Tajik and Russian dissertation councils for the defense of doctoral and candidate dissertations in key areas of scientific specialties;</li> <li>-training of highly qualified specialists in 103 educational programs of PhD doctoral studies;</li> <li>-Availability of the Scientific Library with more than 1 million copies of books and periodicals;</li> <li>- close cooperation with leading research institutes of the National Academy of Sciences of the Republic of Tatarstan;</li> <li>-cooperation with a number of leading universities and research centers of foreign countries;</li> </ul>	<ul style="list-style-type: none"> <li>-low volumes of R&amp;D execution by order of enterprises;</li> <li>- outdated laboratory and technical base in a number of scientific areas;</li> <li>-low level of commercialization of research results of university scientists;</li> <li>- underdevelopment of scientific schools in new areas of natural sciences;</li> <li>-weak publication activity of teaching staff in journals indexed in the information and analytical systems of scientific citation Scopus and Web of Science;</li> <li>-low efficiency of PhD doctoral studies (postgraduate studies);</li> </ul>

	<p>-high potential for performing R&amp;D by order of enterprises;</p> <p>-experience in assessing the resource potential of the regions of the republic and the development of regional development programs;</p>	<p>-weak digitalization of library resources, lack of a powerful electronic library available to all teaching staff and students, incl. with internet access;</p> <p>-insufficient replenishment of the library fund with new textbooks and scientific literature, incl. in the state language;</p>
<b>International activity</b>	<p>-image of a successful classical university among the countries of Central Asia and Afghanistan;</p> <p>-Availability of concluded agreements and memorandums with more than 280 universities and research centers of the countries of the world;</p> <p>-implementation of joint educational programs for bachelor's and master's degrees with foreign universities.</p>	<p>-decrease in the quality of knowledge of the Russian language among the teaching staff in the areas of specialties;</p> <p>- a small proportion of teaching staff who speak English in specialties;</p> <p>-low efficiency of implemented joint educational programs with foreign partners;</p> <p>-low academic mobility (both outgoing and incoming) teaching staff and students</p>
<b>Staffing</b>	<p>-availability of highly qualified teaching staff;</p> <p>-high level of formation of the personnel reserve;</p> <p>- the prospect of career growth not only within the university, but also in other universities and research centers of the republic, as well as in government bodies;</p>	<p>- the dominant involvement of the teaching staff in the educational process in comparison with scientific and innovative activities;</p> <p>-the turnover of scientific and scientific-pedagogical personnel;</p>

	<ul style="list-style-type: none"> <li>-high competition for filling vacant positions of the university, etc.</li> </ul>	<ul style="list-style-type: none"> <li>-insufficient motivation for creative work;</li> <li>-the demographic imbalance of the gradual teaching staff towards age groups;</li> <li>-relatively low wages of the teaching staff;</li> <li>-Lack of qualified specialists in programming, information systems and digital technologies, etc.</li> </ul>
<b>Information Support</b>	<ul style="list-style-type: none"> <li>-high level of provision of the university with computers;</li> <li>-operating electronic university with the availability of EOR for distance learners;</li> <li>-Access to the Internet for all educational buildings, administrative buildings and libraries;</li> <li>-extensive use of modern information technologies in the educational process, etc.</li> </ul>	<ul style="list-style-type: none"> <li>- lack of a single local computer network across the university;</li> <li>-insufficient integration of all Internet resources of the university;</li> <li>-insufficient software for the educational process, workflow, access to the library fund, etc.</li> </ul>
<b>Logistics support</b>	<ul style="list-style-type: none"> <li>-developed infrastructure of the university;</li> <li>- advance implementation of the program for the complete completion of the construction of facilities in the "Student City";</li> <li>-Availability of hostels for students, graduate students and teachers;</li> <li>- availability of sports facilities, playgrounds and sports equipment;</li> <li>- out-of-town training bases ("Takob" and "Ziddi" in the Varzob region, "Javoni" in the Ramit gorge</li> </ul>	<ul style="list-style-type: none"> <li>-physical and moral deterioration of the material and technical base in a number of structural divisions;</li> <li>- remoteness of some hostels from educational buildings.</li> </ul>

	of Vakhdat, Shakhriston in the Farkhor region); - interest and support of enterprises in strengthening the educational and laboratory base of the university, etc.	
<b>Finance</b>	-availability of government funding; -increase in cash receipts from the implementation of educational programs, incl. from the export of educational services, etc.	- the need to finance the completion of the construction of the "Student City"; -weak commercialization of research results; - imperfection of financial planning.

Assessment of the impact of various opportunities for the development of the university, as well as the threats are presented in Table 2

Table 2

### Opportunities and threats for the development of TNU

<b>Direction of activity</b>	<b>OPPORTUNITIES</b>	<b>THREATS</b>
<b>Institutional framework and governance</b>	- state support, as the only institution of higher education, the founder of which is the Government of the Republic of Tajikistan; -conclusion of agreements on strategic partnership with ministries and departments of the republic, large companies and other economic entities;	- a rollback to the previous education system; -insufficient development of mechanisms of interaction between the real sector of the economy and universities in educational and innovative areas;
<b>Educational activities</b>	-growth of the control figures for the admission of applicants for the demanded specialties; -increasing demand for science graduates; - involvement of employers in the formation of competencies and assessment of the quality of	-weak level of training of applicants; - increased competition in the market of educational services in Tajikistan from the leading universities in the world;



	educational programs;	-reduction of the control figures for the admission of applicants for reasons of a non-market nature, etc.
<b>Scientific and innovative activity</b>	<p>participation of students, researchers and teaching staff in scientific competitions and grants;</p> <p>-increasing the market for scientific and technical developments, sociological research, consulting and information services;</p> <p>-implementation of the state strategy for the accelerated industrialization of the economy;</p>	-increasing competition in the market for innovative services and the entry of foreign research centers into the Tajik market;
<b>International activity</b>	-the presence of an extensive network of international contacts;	-existing gap in the level and quality of world and Tajik educational and innovative technologies;
<b>Staffing</b>	<p>-inviting foreign teachers who are native speakers;</p> <p>-invitation of established scientists in order to establish new scientific schools and research directions</p>	<p>-the outflow of young scientists abroad;</p> <p>- the leakage of teaching staff from education and science to other areas of the economy;</p> <p>- weak mechanisms of protection and stimulation of the teaching staff.</p>
<b>Information Support</b>	- wide access to modern software and computer technologies;	-high competition in the e-learning market;
<b>Logistics support</b>	<p>-state financing of the material and technical support of the university;</p> <p>-implementation of educational development programs financed by international organizations;</p> <p>- the interest of business in the presence at the university by</p>	<p>-inflation, and as a result, partial depreciation of financial savings;</p> <p>-economic crisis</p>

	strengthening the teaching and laboratory base;	
<b>Finance</b>	<ul style="list-style-type: none"> <li>-existence of a legislative basis for the creation of small innovative enterprises at the university;</li> <li>-financial support for large businesses;</li> </ul>	<ul style="list-style-type: none"> <li>-reduction of money receipts from foreign students;</li> <li>-reduction of the population's ability to pay;</li> <li>-weak financing of custom-made budget research topics at the Research Institute of TNU</li> </ul>

The environmental factors that can have an adverse effect on the activities of the university include:

- increased competition from the universities of Russia and China for the coverage of advanced applicants;

- a high proportion of the population that is unable to pay for the education of children in the paid departments of the university;

- underdevelopment of the labor market, the presence of nepotism and corruption when applying / applying for a job, etc.

On the basis of the analysis, the problems and tasks facing the university are structured and the ways of their solution are determined, taking into account the available and expected resources. Prospective directions for the development of the university and measures for their implementation are presented in Table 3.

**Table 3**

**Priority directions of TNU development and measures for their implementation for the period 2021-2025**

<b>Direction of activity</b>	<b>USING STRENGTHS</b>	<b>MINIMIZING WEAKNESSES</b>
<b>Institutional framework and governance</b>	- the introduction of innovations in the educational process, the organization of scientific work, the equipment	-optimization of the OSU, development of programs for the development of individual structures and areas of activity;

	of laboratories, the structure of the university, etc.	
<b>Educational activities</b>	<ul style="list-style-type: none"> <li>-implementation of targeted (budget) training for government agencies and budgetary organizations, as well as targeted contract training for business;</li> <li>-increase in the number of basic departments in medical institutions and the creation of a university clinic;</li> <li>-participation in comprehensive targeted programs of continuing education (additional vocational education and short-term courses);</li> <li>-opening educational programs with the Uzbek language of instruction;</li> <li>-opening educational programs with training in two languages in specialties (Tajik-Russian, Tajik-English, etc.).</li> </ul>	<ul style="list-style-type: none"> <li>-increasing the effectiveness of network educational programs;</li> <li>-expansion of ESM capabilities;</li> <li>-activation of distance learning forms;</li> <li>- improvement of professional development and retraining programs for teaching staff;</li> <li>-increasing educational programs at the bachelor's level in English;</li> <li>-organization of master's programs in Russian and English;</li> <li>- creation of new departments (innovative economics, public administration, sustainable development, regional economics, etc.).</li> </ul>
<b>Scientific and innovative activity</b>	<ul style="list-style-type: none"> <li>-increase in the volume and list of research projects carried out in the interests of industries, enterprises and regions of the republic;</li> <li>- introduction of an electronic system for receiving scientific articles in the journal "Vestnik TNU";</li> </ul>	<ul style="list-style-type: none"> <li>-opening of new dissertation councils;</li> <li>- entry of the scientific journal "TNU Bulletin" into the list of journals indexed in the information-analytical system of scientific citation Scopus and Web of Science;</li> </ul>

	<ul style="list-style-type: none"> <li>-organization and holding of an international student physics Olympiad (every two years);</li> <li>- implementation of the State program "Study and development of natural, exact and mathematical disciplines in the field of science and education, 2020-2040";</li> <li>-development and compilation of multilingual terminological industry dictionaries, etc.</li> </ul>	<ul style="list-style-type: none"> <li>- activation of promotion of scientific, innovative, consulting, sociological and educational services to the Tajik and regional markets;</li> <li>- activation of the activity of the technopark in the direction of the implementation of scientific and research works of the teaching staff.</li> </ul>
<b>International activity</b>	<ul style="list-style-type: none"> <li>-implementation of joint educational programs for PhD doctoral studies with leading universities in the world;</li> <li>- attracting more foreign students from Central Asia, Afghanistan, Pakistan, India, China for Master's and Doctoral PhD programs;</li> <li>- attracting more grants, participating in international calloration, etc.</li> </ul>	<ul style="list-style-type: none"> <li>- expanding the implementation of joint educational programs for bachelor's and master's degrees;</li> <li>-expansion of academic mobility of teaching staff, students;</li> <li>- organization and holding of international symposia, conferences, seminars and round tables on the most pressing issues of the development of higher education, national economy, as well as regional issues.</li> </ul>
<b>Staffing</b>	<ul style="list-style-type: none"> <li>-training and advanced training of teaching staff abroad;</li> <li>-creation of intra-university competition;</li> </ul>	<ul style="list-style-type: none"> <li>-training and advanced training of teaching staff abroad;</li> <li>-creation of intra-university competition;</li> <li>- creation of transparent mechanisms for the career growth of young specialists;</li> </ul>

	- creation of transparent mechanisms for the career growth of young specialists;	
<b>Information support</b>	- expansion of the functions of the electronic university;	development of computer support and computer networks;
<b>Logistics support</b>	-completion of the construction of the Campus "Campus";  -implementation of the "Project for equipping and providing scientific and educational laboratories of TNU with equipment and reagents for 2021-2025."	-creation of joint laboratories with scientific and educational institutions of the republic, leading companies;
<b>Finance</b>	-development of additional professional education and contractual research work;	-implementation of long-term financial planning;
	<b>IMPLEMENTATION OF OPPORTUNITIES</b>	<b>PREVENTING THREATS</b>
<b>Institutional framework and governance</b>	- development of the scientific and educational cluster "Tajik National University";  - optimization of management schemes for departments, faculties and the university, etc.	-improving the mechanisms of interaction between universities and the real sector of the economy in educational and innovative areas
<b>Educational activities</b>	-diversification of basic educational and additional programs;  -international accreditation of the university (educational programs);	-expansion of the range of educational services in order to increase the effective demand for them;  -improvement of the system of work with students of schools, colleges;

	-improvement of educational programs taking into account professional standards and requirements of the educational market;	
<b>Scientific and innovative activity</b>	-expansion of interuniversity relations: implementation of joint projects, use of scientific cooperation opportunities;	-development of scientific schools;-creation of joint innovative structures with the business community;
<b>International activity</b>	<ul style="list-style-type: none"> <li>- creation of new joint faculties with foreign universities;</li> <li>- organization of MBA master's programs;</li> <li>- organization of special master's programs and PhD programs for teachers of universities in Afghanistan and other countries;</li> </ul>	<ul style="list-style-type: none"> <li>- development of educational programs certified at the international level;</li> <li>- participation of the teaching staff in regional and global projects on climate, green economy, combating terrorism and other modern threats.</li> </ul>
<b>Staffing</b>	<ul style="list-style-type: none"> <li>- raising the level of qualifications of teaching staff;</li> <li>- promoting the image of TNU.</li> </ul>	- implementation of an effective contract with the teaching staff;
<b>Information Support</b>	<ul style="list-style-type: none"> <li>creation of virtual laboratories and their software;</li> <li>-development and implementation of 3D technologies in the educational process;</li> </ul>	<ul style="list-style-type: none"> <li>-development of distance educational technologies;</li> <li>- improving the quality of ESM;</li> </ul>
<b>Logistics support</b>	-complete completion of the construction of the campus of the "TNU Student City" for the 40th anniversary of the Independence of Tajikistan;	-использование механизмов межсетевого взаимодействия и центров коллективного пользования, уникального научного оборудования;

	-providing advanced renewal of the material and technical base and equipment of the educational process;	
<b>Finance</b>	-using the advantages of the current legislation in the system of higher education and scientific activity	-increasing extra-budgetary funding by attracting funds from various sources

## V. Strategic priorities of TNU development (based on SWOT analysis)

### 5.1. Education

**Strategic objective:** to ensure the growth of efficiency and competitiveness of the educational system of TNU on the basis of modern approaches to the organization and implementation of the educational process, including on the basis of:

- ✓ integration of scientific and educational processes;
- ✓ full-scale implementation of distance learning technologies;
- ✓ creation and promotion of relevant courses and programs of additional education;
- ✓ creation of advanced tools for attracting foreign applicants;
- ✓ creating advanced tools for employing graduates;
- ✓ building up continuous practice-oriented learning at all levels of education (bachelor's, master's, doctoral PhD), including additional education programs, incl. within the framework of network and cooperative training.

#### **Development priorities:**

1. Attracting applicants: expanding the geography, increasing the quality of the composition and using modern attracting tools.
2. Strategic partnership and networking with foreign partner universities and employers.
3. Orientation of the educational process to the requirements of employers and professional standards, as well as integration with the scientific process and innovation.
4. Creation of an effective system of full-fledged employment of graduates.
5. Ensuring the economic efficiency of the educational process without

losing quality.

6. Large-scale introduction of distance technologies into the educational process.

7. A significant increase in the share of income from additional education and attracting foreign students and applicants in the budget of TNU, the development of a demanded and competitive system of additional professional education.

## **5.2. Science and innovation**

Strategic objective: to increase the efficiency of scientific and innovative activities in priority areas of development of science, technology and technology in the Republic of Tajikistan

Development priorities

1. Strengthening the position of the Tajik National University as a leading research center in the country and the region.

2. Increase in the proportion of teaching staff, doctoral students and masters involved in the implementation of fundamental and applied scientific research.

3. Creation of conditions for attracting investments in the scientific activity of the university. Increasing the number of funded research projects and programs by diversifying the revenue side of the budget, incl. by developing business contracts for the provision of technical services, conducting sociological and marketing research, providing expert and consulting services, thereby increasing the volume of research and development work.

4. Stimulating the development of priority research areas identified by the Government of the Republic of Tajikistan, the Academic Council of the University, including work on the material, technical and organizational support of scientific research.

5. An increase in the number of copyright certificates, patents and scientific publications in international editions with an impact factor included in the international scientometric bases, thereby strengthening the international scientific authority of the university.

6. Effective implementation of the results of research work in the educational process in order to improve the quality of education.

7. Development of the technology transfer system.

8. Coordination and support of research and inventive work of scientists of the Tajik National University.

9. Development of interdisciplinary research and organization of competitive support for interdisciplinary research projects.



10. Support for the implementation of fundamental and applied research in priority areas of science and technology.
11. Organization of scientific expertise for holding and participating in intra-university and republican competitions.
12. Reorganization of the structure of the scientific part of the Tajik National University in order to more effectively implement the innovative activity of university scientists.

### **5.3. Management and personnel**

Strategic objective: To increase the efficiency of the HPU management system by:

- use and improvement of modern management technologies, strategic management and quality management;
- increasing the financial stability of the TNU and the economic efficiency of the main processes.

#### **Development priorities:**

1. Improving the management and planning system (operational and strategic).
2. Development of human resources.
3. Development of an effective budgeting system based on delegation of authority and responsibility (self-regulating self-development budget).

### **5.4. Infrastructure**

Strategic objective: to provide optimal conditions for training and work of TNU students and staff by fully completing the construction of the TNU Campus facilities in accordance with international standards, as well as through cooperation with leading enterprises and organizations.

#### **Development priorities:**

1. Development of a university campus with comfortable and safe learning and working conditions.
2. Modernization and development of TNU information systems and ensuring the quality of service functions for students and staff at the level of world standards.

### **5.5. Marketing, educational and extracurricular activities**

Strategic objective: to build an effective marketing system for TNU to expand the geography and territory of influence in the Central Asia region, including Afghanistan, to attract additional funds for the development of the University.

#### **Development priorities:**

1. Effective marketing in the domestic and regional (Central Asia, including

Afghanistan) market, active positioning and promotion of the TNU brand.

2. Development of fundraising based on the establishment of a system of interaction with TNU alumni and partners.
3. Ensuring international integration and internationalization of the scientific and educational process.
4. Improving corporate culture.

**Key events of TNU strategic development:**

1. Improvement of the educational process and its integration in the "science-education-production" system.
2. Improvement of educational, methodological, informational and material and technical support of the educational process.
3. Intensification of research and innovation activities of the university at all levels.
4. Further internationalization of education and research.
5. Formation of a full-fledged system of continuous education.
6. Development of the personnel potential of the university.
7. Improvement of the management system and diversification of the budgetary process in TNU.
8. Development of the university infrastructure.

**Vi. Basic tools and principles for the implementation of the TNU Development Strategy**

The main tools for implementing the "TNU Development Strategy for the Period up to 2025" are:

- ✓ annually developed roadmaps for key areas of the TNU Development Strategy;
- ✓ monitoring the implementation of roadmap measures;
- ✓ analysis of the implementation of annual events and updating of tasks for the next year.

TNU development strategy, annual roadmaps of events, analysis of implementation and actualization of tasks for the implementation of the Strategy are adopted by the decision of the TNU Academic Council.

Below are the basic principles underlying the formation of the TNU Development Strategy, its control and management.

**1. The principle of division into activities of current functioning and development strategies**

A process approach is typical for managing the current operation, and a project approach for development management.

Activities aimed at maintaining current processes are activities of the current

functioning and should not be included in the Development Strategy.

The development strategy includes only projects aimed at solving strategic problems, including the modernization of the main university processes.

## **2. The principle of focus on solving strategic problems**

All activities of the Development Strategy should be focused on the solution of strategic tasks and the implementation of strategic priorities identified on the basis of a SWOT analysis.

## **3. The principle of control, responsibility and incentives**

Control over the implementation of the Development Strategy measures is carried out by the Vice-Rector for the relevant direction.

The development strategy is detailed annually. The Vice-Rector for the relevant area carries out constant monitoring of the implementation of activities throughout the year, and also considers proposals for adjusting the timing and amount of funding for the implementation of activities included in the roadmap of the Development Strategy.

Responsible performers are personally responsible for the implementation of individual activities.

Fulfillment / non-fulfillment of the activities of the Development Strategy can be materially and morally encouraged / punished.

## **4. The principle of prompt response**

The details of the measures of the Development Strategy and the amount of financing can be adjusted in the course of their implementation based on an operational analysis of changes in the external environment. The decision to change the details and / or the amount of funding is made by the Academic Council of TNU.

## **5. Principle of reporting**

The results of the implementation, the main results, as well as the intermediate results of the implementation of the Development Strategy are subject to public presentation and discussion in structural divisions and at the Academic Council of TNU.

### Roadmap for the implementation of key measures for the strategic development of TNU

№ p/p	Name of the event	Implementation period	Responsible executor	Performance indicators and expected results
<b>1</b>	<b>Improving the educational process focused on the needs of the labor market</b>			
1.1.	Implementation of targeted (budget) training for government agencies and budgetary organizations, as well as targeted contract training for business	2021-2025	First Vice-Rector, Vice-Rector for Academic Affairs, deans of faculties	full (100%) employment of graduates in the specialty
1.2.	Creation of basic departments in medical institutions	2021-2023	First Vice-Rector, Vice-Rector for Academic Affairs, Dean of the Faculty of Medicine	-organization of practical training; -performance of term papers and theses;
1.3.	Participation in comprehensive targeted continuing education programs (CVE and short-term courses);	2021-2025	First Vice-Rector, Vice-Rector for Academic Affairs, Director of IATTHEIRT, Director of the Lyceum	-conclusion of contracts with universities of the Republic of Tatarstan for the organization of refresher courses; -conclusion of contracts with government ministries and departments, large companies, associations of entrepreneurs (industry associations) on the organization of refresher courses and retraining of personnel; -expansion of the directions of preparatory courses for admission to universities;
1.4.	Opening groups for foreign citizens	2021-2025	First Vice-Rector, Vice-Rector for Academic Affairs,	-admission of at least 800 students from Afghanistan, Kazakhstan, Kyrgyzstan,

			Vice-Rector for International Relations	India, Turkmenistan, Uzbekistan and other countries annually.
1.5.	Opening groups with training in two languages (Tajik-Russian, Tajik-English, Tajik-Chinese, etc.)	2021-2025	First Vice-Rector, Vice-Rector for Academic Affairs, deans of faculties	- the introduction of bilingual education in more than 20 training specialties.
1.6.	Increase of educational programs of the bachelor's level in English	2021-2025	First Vice-Rector, Vice-Rector for Academic Affairs, deans of faculties	-every year, introduce 2 educational programs in English
1.7.	Organization of master's programs in English	2021-2025	First Vice-Rector, Vice-Rector for Academic Affairs, deans of faculties	- introduce one educational program in English every year
1.8.	Assistance in building human resources of universities and state bodies of the northern provinces of Afghanistan	2021-2025	Vice-rector for international relations	- concluding new agreements with universities in Afghanistan and enhancing the implementation of existing agreements; - admission to the magistracy of at least 100 citizens of Afghanistan annually; -Admission to PhD doctoral studies at least 10 citizens of Afghanistan annually
1.9.	Assistance in building the personnel potential of universities in Uzbekistan with groups with Tajik language of instruction	2021-2025	Vice-rector for international relations	-conclusion of new agreements with universities of Uzbekistan and activation of the implementation of existing agreements; - admission to the magistracy of at least 40 citizens of Uzbekistan annually; -admission to PhD doctoral studies at least 4 citizens of Uzbekistan annually
<b>2.</b>	<b>Educational, methodological, informational and material and technical support of the educational process</b>			

2.1.	Expansion of the functions of the electronic university	2021-2025	First Vice-Rector, Vice-Rector for Academic Affairs, Vice-Rector for Science and Innovation, CITDE	<ul style="list-style-type: none"> <li>- development of educational content adapted to modern conditions;</li> <li>- digitization of textbooks, teaching aids and monographs by TNU authors, published in the Tajik language for the entire period;</li> <li>-integration of the base of the electronic library of the university on the Internet, the introduction of an electronic library card for students and teaching staff of the university.</li> </ul>
2.2.	Development of computer support and computer networks	2021	First Vice-Rector, Vice-Rector for Academic Affairs, CITDE	<ul style="list-style-type: none"> <li>-annually 10 percent renewal of the computer park;</li> <li>-creation of a unified university-wide computer network;</li> <li>- ensuring the availability of electronic resources of TNU to all students and teaching staff</li> </ul>
2.3.	Creation of virtual laboratories and their software	annually	First Vice-Rector, Vice-Rector for Academic Affairs, CITDE	<ul style="list-style-type: none"> <li>-creation of at least 1 laboratory per year;</li> <li>- improving the quality of ESM;</li> </ul>
2.4.	Development and implementation of 3D technologies in the educational process	annually	First Vice-Rector, Vice-Rector for Academic Affairs, Vice-Rector for Science and Innovation, CITDE	<ul style="list-style-type: none"> <li>- development of 3D models and their use in the educational process</li> </ul>
2.5.	Development of distance learning technologies	annually	First Vice-Rector, Vice-Rector for	<ul style="list-style-type: none"> <li>-increasing the contingent of distance learning students;</li> </ul>

			Academic Affairs, Vice-Rector for Science and Innovation, Vice- Rector for Economic and Social Affairs, CITDE	-procurement of licensed software
2.6.	Creation of joint educational and scientific laboratories with scientific and educational institutions of the republic, leading companies	annually	First Vice-Rector, Vice-Rector for Academic Affairs, Vice-Rector for Science and Innovation, Vice- Rector for Economic and Social Affairs	- opening at least 1 laboratory per year; - organization of interaction between problem laboratories and joint implementation of research and development (in areas)
2.7.	Using mechanisms of interconnection and shared centers, unique scientific equipmen	2021-2025	First Vice-Rector, Vice-Rector for Academic Affairs, Vice-Rector for Science and Innovation, Vice- Rector for International Relations, Vice- Rector for Economic and Social Affairs	- improving the quality of the educational process and the level of scientific research through the use of interconnection mechanisms, shared centers, unique scientific equipment
<b>3.</b>	<b>Intensification of research and innovation activities</b>			
3.1.	Support of existing and development of new scientific schools (directions)	2021-2025	Vice-rector for Science and Innovation	-increase in the number of publications in journals indexed in the information and analytical systems of scientific citation Scopus and Web of Science;

				-increase in the number and volume of contractual research and development
3.2.	An increase in the volume and list of research projects carried out by order of associations of commodity producers, specific enterprises, individual regions of the republic	2021-2025	Vice-rector for Science and Innovation	-increase in the volume and list of research works carried out under economic contracts by 10%; -participation of undergraduate and graduate students in research and development work, sociological surveys
3.3.	Increasing activity in the promotion of scientific, innovative, consulting and educational services in the domestic and international markets	2021-2025	Vice-Rector for Science and Innovation, Vice-Rector for International Relations	- increasing the efficiency of participation in exhibitions and conferences; - active promotion of science, wide advertising of the results of the educational and research process
3.4.	Expansion of interuniversity ties, use of scientific cooperation opportunities	2021-2025	Vice-Rector for Science and Innovation, Vice-Rector for International Relations	- strengthening cooperation with institutes and research centers of the National Academy of Sciences of the Republic of Tajikistan; -implementation of joint projects within the framework of the EAU, AAU, IASRP, as well as within the framework of agreements with other leading foreign educational institutions and research centers.
3.5.	Creation of joint innovation structures and technology parks with foreign companies	2021-2025	Vice-rector for science and innovation, vice-rector for international relations, deans of faculties	- creation of technoparks and innovation parks; - creation of business incubators; - creation of laboratories in cooperation with foreign companies.
<b>4.</b>	<b>Ensuring international integration and internationalization</b>			



4.1.	Improving the qualifications and competence of employees and teachers involved in international projects	2021-2025	Vice-rector for international relations	-increasing the professional competence of teaching staff (language and communication competencies, information literacy, project activities, etc.)
4.2.	Participation in international projects in the field of education, science and innovation	2021-2025	Vice-rector for international relations	- implementation of joint educational programs and projects (network and interdisciplinary) with foreign universities
4.3.	Attraction of grant support for academic mobility (students and teaching staff)	2021-2025	Vice-rector for international relations	- increase in academic mobility (students and teaching staff)
4.4.	Boosting the University's presence on the Internet	daily	Vice-Rector for Science and Innovation, Information and Analytical Center	- regular posting and updating of information on the university website in three languages (Tajik, Russian, English)
4.5.	Expanding the presence of the university on the Internet	2021	First Vice-Rector, Vice-Rector for Academic Affairs, Vice-Rector for Science and Innovation, Vice-Rector for International Relations, CITDE	-Creation of university website pages in Chinese, Persian, Arabic, French and German (placement of basic information); -Creation of the official TNU page on social networks Facebook, Instagram, Twitter; -translation of the official correspondence of all structural divisions of the university to .... @ tnu.tj
<b>5.</b>	<b>Development of human resources of the university</b>			
5.1.	Securing young professionals	2021-2025	Head of DHRSR, deans of faculties, heads of departments	-reduction of the average age of the CPD to 45 years
5.2.	Improving the motivation system for teaching staff and employees	2021-2025	Head of DHRSW, trade union committee	-organization and holding of competitions: "The best teacher of TNU", "The best scientist of

				TNU", "The best young researcher of TNU", "The best advisor", "The best curator", "The best student", "Exemplary dean", etc.
5.3.	Improvement of the qualification level of the teaching staff of TNU, teachers of the lyceum	2021-2025	Vice-rector for international relations, director of IATTHEIRT, heads of departments	<ul style="list-style-type: none"> <li>- invitation of leading scientists and specialists of Tajikistan, as well as from foreign countries;</li> <li>- passing refresher courses in leading universities of the CIS, SCO and the world as a whole</li> </ul>
5.4.	Improving the system for monitoring the effectiveness of teaching staff	2021-2025	Head of DHRSW, head of the department for monitoring the quality of education, head of the science department, head of the innovation department, head of the department for educational work, heads of departments	<ul style="list-style-type: none"> <li>- increase in wages with the achievement of specific indicators of scientific and pedagogical, educational and extracurricular activities</li> <li>- introduction of effective control schemes for the activities of teaching staff and employees of TNU</li> </ul>
5.5.	Promotion of the image of TNU	2021-2025	First Vice-Rector, Vice-Rector for Academic Affairs, Vice-Rector for Science and Innovation, Vice-Rector for International Relations, Vice-Rector for Economic and Social Affairs	<ul style="list-style-type: none"> <li>-presentation of TNU educational programs among schoolchildren and college graduates in all regions of the republic;</li> <li>-participation in international conferences, symposia, educational exhibitions with reports and presentations.</li> </ul>
<b>6.</b>	<b>Improved management system and diversified budget</b>			

6.1.	Development of an effective system of strategic management of the university, taking into account the emergence of new management technologies and strategy methods, including foresight technologies	2021-2025	Vice-rector for directions	<ul style="list-style-type: none"> <li>- holding strategic sessions on achieving the targets of this Strategy;</li> <li>- updating the TNU Development Strategy with annual planning</li> </ul>
6.2.	Development of procedures for monitoring the preparation, adoption and implementation of regulations, programs, projects relating to all areas of the University	2021-2025	Vice-Rector for Directions, Education Quality Monitoring Department	<ul style="list-style-type: none"> <li>- fulfillment of accreditation indicators and indicators for monitoring the effectiveness of universities, other requirements imposed by the state on universities;</li> <li>- development and implementation of new indicators of systematic assessment of the university's activities</li> </ul>
6.3.	Ensuring effective communication of the mission, strategic goals, objectives, priorities to the entire team and the public	2021-2022	Vice-rector for science and innovation, deans of faculties, head. general department, information and analytical center	<ul style="list-style-type: none"> <li>- introduction of internal electronic document management;</li> <li>- reflection of the strategic goals, objectives, priorities of the university and the implementation of the "TNU Development Strategy until 2030" in the university newspaper "Ba kullahoi donish" and on the official website of the university.</li> </ul>
6.4.	Optimization of the HPU control system	2021-2025	Vice-rector for economic and social affairs, vice-rector for directions, planning department	<ul style="list-style-type: none"> <li>- optimization of administrative structures;</li> <li>- elimination of duplication of functions;</li> <li>- introduction of modern management technologies;</li> <li>- control of the accuracy and timeliness of the performance of functional tasks by employees</li> </ul>
6.5.	Mobilizing University Resources to Achieve Strategic Development Indicators	2021-2025	Vice-Rector for Economic and Social Affairs, Head of the Accounting Department	<ul style="list-style-type: none"> <li>- performance of strategic development indicators;</li> <li>- assessment of the progress of achieving strategic indicators</li> </ul>
<b>7.</b>	<b>Development of the university infrastructure</b>			

7.1.	Completion of the second stage of construction of the campus "TNU Campus"	2021-2025	Vice Rector for Economic and Social Affairs	- construction of blocks "B" and "C" of the student dormitory №8 for 1096 places; - completion of construction, equipping and commissioning of an indoor sports complex with a swimming pool;
7.2.	Energy saving program implementation	2021-2022	Energy saving program implementation	- provision of central heating in all educational buildings and hostels of the university; - purchase and use of exclusively energy-saving devices and equipment; - completion of work on lighting the territory of the "Student City" and lighting of buildings using solar panels

### Dynamics of target indicators of the efficiency of TNU development for 2021-2025

	Targets	unit of measurement	2021	2022	2023	2024	2025
	<b>I. Indicators of the quality of educational activities (monitoring indicators)</b>						
1.	The proportion of the number of students at the university (reduced contingent) for Master's and PhD programs in the total number of students at the university for the main educational programs of higher education	percent	8	8	9	9	10
2.	The proportion of the number of students enrolled in the areas of preparation of bachelor's, specialist's and master's degrees in	percent	11	12	12	13	14

	the field of natural, exact and mathematical sciences in the total number of students						
<b>II. Performance indicators of research and innovation activities (monitoring indicators)</b>							
3.	The number of university publications indexed in the information and analytical system of scientific citation:	units	1700	1830	1965	2100	2220
	RSCI - per 100 scientific and pedagogical workers	units	130	140	150	160	170
	Scopus and Web of Science - per 100 research and teaching staff	units	5	10	15	20	25
4.	The number of citations of publications published over the past 5 years, indexed in the information and analytical system of scientific citation:	units	80	90	100	110	120
	RSCI - per 100 scientific and pedagogical workers						
	Scopus and Web of Science - per 100 research and teaching staff	units	5	8	10	15	20
<b>III Indicators of internationalization and international recognition (monitoring indicators)</b>							
5.	The share of the number of foreign students enrolled in bachelor's, specialty, master's programs in the total number of students (reduced contingent)	units	2	2	3	4	5
6.	Численность зарубежных ведущих профессоров, преподавателей и	human					

	исследователей, работающих в университете не менее 1 семестра		26	28	30	34	36
7.	Численность ППС, прошедших курсы повышения квалификации в зарубежных вузах	human	5	10	12	15	20
<b>IV. Indicators of financial and economic stability of the university (monitoring indicators)</b>							
8.	The share of university income from funds from income-generating activities in income for all types of financial support (activities) of the university	percent	61,0	61,5	62,0	62,5	63,0
9.	University income from all sources per one scientific and pedagogical worker, per year	somoni	75 403,00	79 927,00	84 722,00	89 806,00	95 194,00
10.	The ratio of the average salary of scientific and pedagogical workers at the university (from all sources) to the average salary in the region (Dushanbe city)	times	1,3	1,4	1,5	1,6	1,7

## **List of abbreviations and acronyms**

AAU - Asian Association of Universities

SES - State Educational Standard

APE - Additional professional education

EAU - Eurasian Association of Universities

IATTHEIRT - Institute for advanced training of teachers of higher educational institutions of the Republic of Tajikistan at TNU

IASR - International Academy of the "Silk Road"

CPW - Scientific and pedagogical workers

Software - Software

TNU - Tajik National University

DHRSW – The Department of Human Resources and Special Works

CITDE - Center for Information Technologies and Distance Education

CSL- Center for the Study of Languages

EER - Electronic educational resource