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On April 4, 2022, the President of the Kyrgyz Republic, Sadyr Zhaparov, addressed in his official speech to workers in the field of education, health and culture, and emphasized that the main key to the success of Kyrgyzstan is its human resources, the educated strong and worthy generation of prospective Kyrgyz citizens. This should become a nationwide goal that will unite the whole people. Our children should feel confident in the middle of the 21st century, possess knowledge and skills of the highest class, successfully competing with their peers in the global community.

The KG Analytics Foundation, like many citizens of the country, agree and share this vision. Education in Kyrgyzstan, especially the school education, is going through very difficult times – poor quality, lack of schools, lack of funding, lack of teachers, lack of textbooks and many other problems. The President's statement is extremely important and timely.

In this Overview, we want to talk about the problems of school education in Kyrgyzstan, as well as share proposals for reforming the education system to educate and form a competitive Kyrgyzstani in the modern global world.

AN OVERVIEW: SCHOOL EDUCATION IN KYRGYZSTAN: WHAT IS TO BE DONE?

This Overview was prepared based on analysis of open statistical data (both national and international), government documents defining strategic directions for the development of education sector in the Kyrgyz Republic, school education programs, legal and regulatory acts, and research studies (as per attached list). In addition, this Overview took into account the results of discussions of the main issues raised herein with experts, specialists and persons interested in improving the quality of school education in Kyrgyzstan.

The purpose of this Overview is to demonstrate that:

• The state of the economy and poverty in Kyrgyzstan are attributable, among other factors, to the low level of functional literacy of the vast majority of the adult population of the country;

Minimum literacy is the ability to read, write and count. Functional literacy is the ability to apply knowledge, skills, and abilities to solve a wide range of life problems.

 The low level of functional literacy of the adult population is largely due to the poor quality of school education;

- The poor quality of school education in Kyrgyzstan is attributable to a number of factors, the key ones being: teacher quality and teaching quality; weak management capacity at all levels of education; a lack of modern approaches to school management and financing;
- The entry points for launching systemic changes on the way to better quality of school education must be as follows: a) changing approaches to school management and financing, including the introduction of school voucher mechanisms b) changing the teacher training and professional development system;
- Better quality of school education has a direct impact on adult literacy level, increases in worker productivity, and economic growth.

1. KYRGYZSTAN

DEMOGRAPHY, POVERTY, ECONOMY

- i. The current population of Kyrgyzstan is 6.6 million, two-thirds of whom live in rural areas. 30% of the population are under age 15. The average age of a Kyrgyz citizen is 27.5 years. By 2030, the total population may reach 7.5 million. The share of the young population will increase.
- ii. About 2.2 million people live in poverty and extreme poverty. About 1 million people are involved in labor migration. The vast majority of migrant workers are occupied in low-skilled jobs.
- iii. In 2020, Kyrgyzstan's economy ranked 151st out of 181 in per capita income. GDP per capita in Kyrgyzstan (\$1,173) is almost 8 times less than in Kazakhstan, 9 times less than in Russia, and 20 times less than in Estonia.

1. WHY ARE WE POOR?

LOW LEVEL OF FUNCTIONAL LITERACY, LOW LABOR PRODUCTIVITY

i. As shown by the findings from the 2018 skill survey for the adult Kyrgyz population (the Program for the International Assessment of Adult Competencies, PIAAC), almost 60 percent of adults scored "at or below level 1" in literacy and numeracy (there being three levels in total, with level 2 being considered the minimal proficiency level). This means that 60% of adults in Kyrgyzstan have, at best, "knowledge of and are able to recognize basic vocabulary, determine the meaning of sentences, and read paragraphs of short texts," and are, at best, able to engage in "simple processes involving counting, sorting, performing basic arithmetic operations". In comparison, only 25 percent of adults in Europe and Central Asian countries score at or below level 1.

The Program for the International Assessment of Adult Competencies (PIAAC) assesses professional skills and competencies of working-age adults in countries around the world. Competencies are understood as a combination of skills, knowledge and attitudes which are applied by people of working age in the real-life situations in order to achieve certain individual and/or collective goals.

- ii. Almost 98% of adults in Kyrgyzstan scored in "problem solving in a technology-rich environment" (information and communication technology skills) "at or below level 1" (there being three levels in total, with level 2 being considered the minimal proficiency level). This means that 98% of adults in Kyrgyzstan have only "basic skills involving the use of widely available and familiar technology applications, such as email software or web browsers".
- iii. Labor productivity of workers in Kyrgyzstan (output per worker per unit of time) is <u>the lowest</u> among European and Central Asian countries. For example, labor productivity is 4 times lower in Kyrgyzstan than in Russia and Kazakhstan, and 5 times lower than in Estonia.
- iv. The human capital index of Kyrgyzstan is 0.58, which means that a child born in Kyrgyzstan today will be 58 percent as productive when she grows up as she could be if she enjoyed complete education and full health.
- v. In Kyrgyzstan, the difference in earnings between adults with tertiary and secondary education is only 9%, while in OECD countries this difference, in average, ranges from 50 to 100 percent. (OECD is the Organization for Economic Cooperation and Development with 37 member countries in Europe, Asia and Latin America). One of the reasons for this may be the poor quality of tertiary education.

Every year about 50,000 young people enter the labor market, with employers experiencing a great shortage of qualified personnel. According to experts' estimates, the most effective and shortest way to improve the skills of young people entering the market is to improve the quality of education.

3. WHY ARE FUNCTIONAL LITERACY AND LABOR PRODUCTIVITY LEVELS AMONG ADULTS LOW?

Despite certain achievements in the school system (increase in school enrollment, increase in number of kindergartens and schools, increase in government spending on education, increase in teacher pay, increase in provision of textbooks, computers, Internet access, etc.), the quality of school education remains low.

LOW LEVEL OF SCHOOLING

- i. There are 1 million 350 thousand school students in Kyrgyzstan, i.e., almost every fifth resident of our country is a school student. About 6 percent of school-age children do not attend school due to health or financial problems, many of them are children of labor migrants.
- ii. According to international and national student assessment systems, an average of 60 percent of school students do not achieve the basic reading, mathematical and scientific

literacy level. This means that students can read, write, count, but may not understand what they have read and may not apply what they have learned.

For example, for students who underwent literacy tests, drawing conclusions, reasoning and problem solving were the most challenging tasks. Students struggled with formulating their own thoughts, providing evidence and examples, and drawing conclusions when answering openended questions. The lowest results were achieved by school students in natural sciences - physics, chemistry, geography and biology. 15-year-olds in Kyrgyzstan are about 4.5 grades behind their peers in OECD countries.

Kyrgyzstan was 65th out of 65 participating countries in PISA 2009, with a score of 314 points. Kyrgyzstan plans to participate in PISA 2025.

According to the Education Development Program of the Kyrgyz Republic (approved by the Cabinet of Ministers of the Kyrgyz Republic in May 2021), Kyrgyzstan is expected to improve its average PISA score by 15 points by 2040. Thus, this means that Kyrgyzstan's ranking will scale up to 50th rank by 2040 as compared to the 65th position in 2009. In the PISA 2009 ranking, the 50th position was taken by Thailand (421 points) (Kyrgyzstan then ranked 65th with a score of 314 points). In 2018, the 50th position was taken by Cyprus (424 points) (Kyrgyzstan did not participate in PISA 2018). Respectively, it is assumed that Kyrgyzstan's goal is to achieve a score of 420 points.

Estonia, which improved its rank from 13th in 2009 (501 points) to 5th in 2018 (523 points), makes an interesting case.

- iii. Teaching quality in rural schools significantly lags behind teaching quality in urban schools. According to the National Assessments of Educational Achievement of Students, in 2017, in rural schools, about 70 percent of fourth-grade students did not achieve the basic proficiency level, in Bishkek schools, this percentage is 43.
- iv. The backlog of children in schools is directly influenced by the low pre-school enrolment. Thus, only 22.2 percent of children aged between 3 and 5 attend kindergartens.

4. WHY IS THE LEVEL OF SCHOOLING LOW?

4.1. Teachers

«The quality of an education system cannot exceed the quality of its teachers»

- i. There are 82,000 teachers in Kyrgyzstan, two-thirds of whom work in rural areas. About 85 percent of teachers are female. Almost half of teachers are approaching or have reached the retirement age (50 years and older), and may leave the system in the next decade.
- ii. Studies in many countries show that the decent salary for a teacher must be at least equivalent to the national average salary.

In Kyrgyzstan, the average monthly salary in the education sector (this includes salaries of teaching and non-teaching staff of public and private educational institutions, as well as academic institutions), is about 20 percent below the national average salary and almost 40 percent below the average monthly salary in the public administration sector. For example, in 2020, the average monthly salary in the education sector was 14,764 soms, the national average monthly salary was 18,940 soms, the average monthly salary in the public administration sector was 22,879 soms.

If we talk about the salary of teachers in public schools, then the monthly teacher rate in Bishkek is about 7 thousand soms. That is, on average, the basic salary of a teacher is almost 2.5 times less than the average salary in the country and more than 3 times less than the average salary of a civil servant. Many teachers are forced to work for one and a half rates (about 8,5 thousand soms per month), many teachers in rural areas run a subsidiary farm.

Teachers' salaries are tied to hourly rates. This principle of payment encourages teachers to work more time, but does not encourage better teaching.

- iii. Every year the country falls short of about 2,000 teachers. There is a particularly acute shortage of elementary school, Russian language, mathematics, and physics teachers. The teaching profession is not seen prestigious in Kyrgyzstan. The number of teachers aged under 30 hardly exceeds 10 percent.
- iv. In countries with the best school education systems, pedagogical institutes attract the best school graduates. For example, pedagogical institutes in South Korea attract 5 percent, in Finland 10 percent, in Singapore and Hong Kong 30 percent of the best school leavers. In Kyrgyzstan, as a rule, pedagogical institutes attract graduates with poor academic performance. The minimum passing score of ORT (republican testing) in the main pedagogical university of the country of I. Arabaev KSU in 2020 was 111 points, and the average score of enrolled applicants in the country was 144.7. For comparison, the average score of those enrolled in KRSU was 151.6, Razzakov KSTU 164.1, I. K. Akhunbayev KSMU 175.5, K-TU Manas 178.

Teacher education in Kyrgyzstan is funded from public budgets. The annual public spending on educating future teachers amounts to at least 100 million soms. Every year, more than 2 thousand students fill budget-funded places in pedagogical institutes with the annual tuition fee ranging from 25 to 45 thousand soms. In the course of studying, a number of students of pedagogical faculties change their specialty choices. After graduation, about 25 percent of graduates do not pursue a career in teaching. Within three years of being hired, about 60 percent of young teachers leave their jobs. As a result, only 20 percent of graduates of pedagogical institutes stay working as teachers. The existing system results in annual multimillion losses due to unreasonable waste of public funds.

v. Teachers have a heavy workload due to the various types of reporting. Despite the elimination of some mandatory reporting in December 2020, teachers are still required to maintain paper records for more than 10 types of reports. Since 2017, the Licensing and Accreditation Department of the Ministry of Education and Science of the CBD has been conducting mandatory accreditation of all schools in the country. Now all schools must

provide hundreds of pages of reports, plans and other documents to the Ministry of Education and Science of the Kyrgyz Republic, which take up a huge amount of time from school principals and teachers.

- vi. Today, about 35 percent of teachers do not achieve minimum proficiency levels in reading and mathematics (which is higher than the national average level of adults' proficiency). The ICT skills of teachers are significantly lower than the national average level of adults' proficiency. Transition to online learning in 2020 showed that even in Bishkek, teachers had no emails to use, had weak computer literacy skills, and taught lessons using WhatsApp.
- vii. The country faces big shortage of qualified teachers. According to the principal surveys, only 40 percent of vacancies are filled with qualified teachers; candidates for the remaining 60 percent of vacant positions do not meet the qualification requirements.
- viii. Countries with high-performing school systems pay great attention to continuing education, professional development, and teaching performance assessment.
- ix. In Kyrgyzstan, all teachers must take at least 72 hours of continuing education every five years. Continuing education for teachers falls within the responsibility of the Ministry of Education and Science of the KR (the MoES), in particular, the Republican Institute of Continuing Education and Retraining for Teachers under the MoES, the Issyk-Kul and the Osh Institutes of Education. Public spending on continuing education for teachers is estimated at about 80-90 million soms in the annual budget. The continuing education system is actually a government monopoly.
- x. At the same time, the existing system does not satisfy the continuing education needs of teachers in terms of both quantity and quality. There being 82,000 teachers in the country, the MoES would be able to ensure continuing education for one teacher every 10 years instead of 5 years required under the law. According to studies, the content of continuing education courses provided through publicly funded programs is mostly formal, outdated, and ineffective. Their performance and effect on the professional development of teachers is not assessed as a rule.

The existing government monopoly over continuing education for teachers poses a barrier to professional development of teachers and, consequently, to improving the quality of teaching in schools. Many countries have long abandoned this system. In many countries (including Russia and Ukraine) continuing education for teachers can be provided by any educational institutions, regardless of type of ownership, properly licensed and accredited to provide continuing education courses for teachers. Teachers have the right to take continuing education courses at any institution so accredited. Such system promotes competition among service providers, which leads to a better quality of their continuing education services.

xi. The performance of the system of continuing education for teachers must be assessed by an objective and unbiased assessment of teaching performance appraisal, which should be based on the assessment of the teachers' ability to develop student competencies.

According to the current legislation, in the country there should be teacher performance appraisal, based on which they can be assigned a category - the second, first and the highest, for which premiums should be accrued - 1 thousand soms, 1.5 thousand soms and 2 thousand soms respectively. In practice, despite the existence of the Teacher Performance Appraisal Regulation, since 2012 teacher performance appraisal was suspended and, accordingly, categories are not assigned. According to some teachers, these allowances are not stimulating, the amount of allowance should be not less than 30 percent of the salary.

For example, in Kazakhstan, teachers are tested in two stages: the first is the National Qualification Testing for teachers; the second stage is a comprehensive analytical synthesis of teachers' activities, which includes compiling a portfolio of teachers with a summary of accumulated experience.

- xii. In Kyrgyzstan there is no system of retraining of teachers, i.e. training of pedagogical staff from specialists with non-pedagogical higher education (or getting a second pedagogical education). Legislation in Kyrgyzstan establishes a system of retraining, but in practice it is absent. The system of teacher retraining works in many countries, including Russia and Kazakhstan. Its goal is to increase the flow of those willing to go into teaching through short-term teacher training courses from specialists with higher education.
- xiii. Kyrgyzstan is the only country in the CIS that does not have qualification requirements for teachers. The absence of qualification requirements negatively affects the system of selection, the system of professional development and professional growth of teachers.

4.2. Educational process

Tutorials

- i. There are serious problems with the lack and quality of textbooks in the country. The provision of textbooks in Kyrgyz-speaking schools is 80%, in Russian-speaking schools 70%.
- ii. Only the Ministry of Education and Science of the Kyrgyz Republic has the right to select authors for textbooks and to publish textbooks themselves. Some textbooks are produced with spelling, grammatical, and semantic errors. Many textbooks do not meet the requirement that students develop competencies as required by the State Educational Standard for School Education. Despite the shortage and the quality of textbooks, teachers are required to use only those textbooks that are on the list of textbooks recommended by the MES.

Study load

iii. The teaching load of students in Kyrgyzstan is high. Thus, an average student in Kyrgyzstan studies 1,060 hours a year, while in Estonia 820, in Finland 808, in Russia 803 hours a year. Obviously, the high teaching load does not guarantee high learning outcomes. In the international ratings

Kyrgyzstan ranks last, while all the above countries are ranked among the countries with significantly better quality of school education.

iv. During the Soviet era, schools in Kyrgyzstan studied 17 subjects, but today there are 25, which is much higher than the generally accepted standards. The average number of subjects studied in the world varies from 8 to 15. The number and content of the subjects studied in the schools of Kyrgyzstan needs to be reduced and revised for more in-depth study.

The learning process - development of competencies

v. The learning process is not restructured to develop competencies (that is, the development of abilities to independently apply knowledge, skills, and abilities in everyday life) as required by modern life and the State Educational Standard (2014). Learning in schools, as in the old days, is 87% based on reading, memorizing, and retelling, i.e., teachers give information and students memorize.

According to the State Educational Standard for School Education of the Kyrgyz Republic (2014), learning should be based on the development of students' competencies, which means the development of abilities to independently apply knowledge, skills and abilities in everyday life. According to the Education Development Program in the Kyrgyz Republic (2021), schools should develop students' information and socio-communication competencies, as well as self-organization and problem solving competencies:

- 1. Information competence students' readiness and ability to independently search, analyze, select and process information, form reasoned conclusions, evaluate its reliability, critically reflect and make informed decisions on planning and carrying out their activities, including the use of information and communication technologies.
- 2. Social and communicative competence readiness to correlate one's aspirations with the interests of other people and social groups, to defend one's point of view on the basis of recognition of diversity of positions and respectful attitude towards values (religious, ethnic, gender, professional, personal) of other people; ability to build a dialogue, receiving necessary information and present it in oral and written forms to solve problems; ability to use and develop one's emotional intellect in communication.
- 3. Competence of self-organization and problem solving ability to detect problems and contradictions in information, learning and life situations, to plan their solution and solve them, independently or in cooperation with others, using critical thinking and analysis skills.

It should be noted that international standards recognize **eight competencies of a person of the 21st century:** multiculturalism and openness; awareness and customer orientation; working in conditions of uncertainty; adaptability and learning ability; working with people and teamwork; intersectoral communication; project and process management, systems thinking; working with IT systems. The State Educational Standard of School Education of the Kyrgyz Republic (2014) provides only three.

i. In addition to the State Educational Standard and textbooks, schools and teachers are required to teach according to subject standards developed by the Kyrgyz Academy of Education. Many of the subject standards required of teachers also do not focus on the development of competencies. The simple transfer of knowledge for the purpose of memorization is still the primary method of instruction. Consequently, in subject lessons, students engage in lower-order thinking activities much more often than higher-order thinking activities.

- ii. Little use is made of information and communication technology (ICT) for subject instruction. The ICT curriculum is provided only for grades 5–9. ICT training in grades 1-4 and grades 10-11 is not stipulated. The number of computers available at schools is 1 computer per 61 students; many computers are obsolete and do not work.
- iii. The main shortcoming of the subject standards is the lack of a measurable end result of learning. Without measuring the quality of learning, it is impossible to improve it.
- iv. All schools in the country (regardless of the form of ownership) are required to comply with the basic curriculum ("BUP" in Russian), approved annually by the Ministry of Education and Science of the Kyrgyz Republic and published at the beginning of the academic year in the newspaper "Kut Bilim". The BUP determines the number of hours of study in all classes and subjects. All schools must coordinate their curricula in writing with the Ministry of Education and Science of the Kyrgyz Republic. The district and city departments of education monitor compliance with the BUP. The Ministry of Education and Science of the Kyrgyz Republic annually makes changes to the BUP, canceling, adding or combining academic subjects. Such decisions of the Ministry of Education and Science negatively affect the planning and quality of the educational process in schools. All private schools from all regions of the country must come to Bishkek to receive the stamp of the Ministry of Education and Science of the Kyrgyz Republic on the approval of the BUP, despite the fact that the BUP is a public document.
- v. In the Kyrgyz Republic there is no system for assessing the achievements (as learning outcomes) of schoolchildren, the quality of education is not measured. There is no data on the quality of school education in the country. The lack of systematic and regular data on student achievements leads to inefficiency and ineffectiveness of state policy in the field of education, on which the state spends almost a quarter of the country's budget.

4.3. School infrastructure

- i. There are 2,296 schools, of which 152 are private (with 38,000 students or about 3% of the country's school population).
- ii. 245 public schools (every tenth) are in an emergency condition (i.e. not to be repaired, but require demolition and new construction), education in emergency schools threatens the life and health of students. 457 schools of the republic (every fifth) require major repairs of roofs, foundations, walls, water supply, and sewage systems. According to the estimates of the Ministry of Education and Science, the country lacks about 670 schools (30% of the existing amount).
- iii. Many schools are overcrowded. Today 151 schools (every fifteenth) work in three shifts. 90 schools in Bishkek are designed for 75 thousand students, but in fact there are 170 thousand students.
- iv. 25% of schools do not have access to clean drinking water. 74% of schools do not have indoor toilets. 68% of schools are not connected to hot water supply.

- v. Disposal of both the financial and administrative resources of schools, in particular the procurement of goods and services for schools and human resources policies are the responsibility of centralized accounting departments, district/city and MES does not lead to efficiency in school management.
- vi. There is no definition of municipal schools in the legislation. The role of local government in school development is limited.

4.4. State Spending on School Education

i. Kyrgyzstan's spending on education in 2017 (including preschool, school, vocational and higher education) amounted to 7% of GDP (Gross Domestic Product), which is more than in other countries (Kazakhstan 3%, Russia and Mongolia about 4%, European Union countries average 5%).

Expenditures on education are increasing annually. Thus, in 2001, they were 3 billion soms, in 2007 - 9 billion soms, in 2012 - 21 billion soms, and in 2020 - 39.9 billion soms (of which 34.3 billion soms from the national budget and 5.6 billion soms from the local budget). About 60% of all expenditures for education go to school education. However, the impressive growth of spending on education (13 times in 20 years) does not lead to an increase in the quality of education.

ii. Despite the approved state budget for education (in 2020 39.9 billion soms in 2020, of which about 60% are expenditures on school education), schools have received about 1.1 billion soms under the budget. However, based on the real needs, the funding gap is about 4 billion soms. For example, each of the 90 public schools in Bishkek receives about 10 million soms.

According to research, the current system of funding is aimed at maintaining the school system, but not at its development. The state budget is not able to fully fund even the minimum needs.

For the full functioning of the school it is necessary to finance about 50 items of expenditures. In practice, expenditures from the national budget finance only 5 expenditure items - payroll (96.1%) (of which, according to research, almost 50% goes to the maintenance of non-teaching staff), nutrition (2.7%), professional development (0.4%), educational expenses (0.4%) and maintenance (0.4%) (2020 data). The last two items are chronically underfunded.

- iii. In 2017, state spending per school student per year was \$826, compared to, for example, \$1,937 in Moldova, \$1,711 in Mongolia, \$6,432 in Kazakhstan, and \$10,292 in the European Union.
- iv. In 2017, state spending per school student in Kyrgyzstan (\$826) while spending per higher education student was \$1,480 and per TVET student \$1,574.

- v. Significant part of the state spending on school education is financed from donor funds (World Bank, Asian Development Bank, USAID, GIZ), some of which are provided in the form of grants and some in the form of loans.
- vi. Annually about 600 million KGS is allocated from the state budget for nutrition of students from 1 to 4 grades, that is 7 KGS per student per day. At the same time, the funds allocated for nutrition are spent inefficiently and corruptly, it is necessary to switch to the targeted distribution of these funds for socially vulnerable children.

3. SOLUTIONS

In the school system, the first and most important level is the needs of the students, for whom the whole system exists. The main need of students is a quality education. Accordingly, the main goal is to improve the quality of school education, which, based on SMART parameters (measurability, significance, specificity, feasibility and achievability within a certain period of time), we propose to formulate as follows:

IMPROVE THE QUALITY OF SCHOOL EDUCATION IN KYRGYZSTAN

by having 60% of school students reach a basic level of functional literacy by 2025

Taking into account the current situation in school education in the Kyrgyz Republic (as well as the results of numerous studies on the improvement of school systems around the world), we believe that systemic changes to improve the quality of school education must implement fundamental changes (reforming) the following areas:

- 1. It is necessary to measure the quality of education, for this it is necessary:
- implement the system for measuring the quality of student learning; and
- implement the system for measuring the level of teachers' qualifications.

The measurement of the quality of education should **be independent** and unbiased. Systems for assessing/measuring the quality of student learning and teacher qualifications exist in many countries. This issue is not new for the Ministry of Education and Science of the Kyrgyz Republic.

In July 2020 The Ministry of Education and Science of the Kyrgyz Republic approved the Concept of an education quality assessment system, but like many documents developed within the framework of numerous international programs, this document was forgotten.

- **2.** It is necessary **to change the content and learning processes** for the formation of a competitive citizen of Kyrgyzstan in the global world, and for this it is necessary:
- expand the number of competencies in the state educational standard to meet the requirements of the 21st century;

- determine the role of the Ministry of Education and Science of the Kyrgyz Republic in the education process as a body that determines the final result (learning outcomes) of teaching and monitors the achievement of these results; the schools and teachers should achieve them based on their own chosen methodologies;
- to give subject standards a recommendatory force, giving teachers the right to choose teaching methods and the right to choose textbooks;
- give the right to publish textbooks of any organization, while textbooks must meet the criteria established by the Ministry of Education and Science of the Kyrgyz Republic;
- reduce the number of hours of study from 1,020 to the minimum mandatory 820 hours per year, while giving schools the right to provide education in excess of 820 hours (but not more than the maximum allowable) in subjects of the choice of the student and the school;
- to give the basic curriculum ("BUP") a recommendatory force, giving schools the right to vary subjects and the number of hours of study depending on the needs of students and the need to comply with the state educational standard.

3. It is necessary to deregulate the education system, for this it is necessary:

- exempt schools from a number of burdensome requirements, such as filling out numerous reports and passing accreditation; the only indicator of the quality of education should be the quality of students' knowledge and the level of teacher qualifications;
- simplify licensing of educational activities, remove barriers and encourage the creation of schools, especially in the regions;
- to give the right to teachers to improve their qualifications in any educational organization, regardless of the form of education (offline/ online) and form of ownership; to create a system of unified national qualification testing of teachers, to give the right to persons with higher education to become a teacher by passing a national qualification exam.

4. It is necessary to increase the efficiency of financing the education system, for this it is necessary:

- to switch from the estimated financing of schools to a system in which "money follows the student" (or a voucher) (from the Message of the President of the Kyrgyz Republic dated May 5, 2021 and the National Development Program of the Kyrgyz Republic until 2026 dated October 12, 2021);
- to give financial autonomy to schools (the right to dispose of the funds received when purchasing inventory and determining the staff), provided that a transparent and open system of financial reporting of schools is introduced.

List of sources used in the preparation of the Review:

- Data from the official website of the National Statistical Committee of the Kyrgyz Republic. www.stat.kg
- 2. Law of the Kyrgyz Republic "On Education".
- 3. Law of the Kyrgyz Republic "On the Status of Teachers".
- 4. Draft of new Law "On Education" submitted for public discussion on September 2, 2021
- 5. Statement of the President Sadyr Japarov to the People of Kyrgyzstan on May 5, 2021
- 6. The World Bank predicts further growth of poverty in Kyrgyzstan. https://rus.azattyk.org/a/vsemirnyy-bank-prognoziruet-dalneyshiy-rost-bednosti-v kyrgyzstane/31154963.html
- 7. State Educational Standard of General School Education of the Kyrgyz Republic, approved by the Government of the Kyrgyz Republic in 2014
- 8. Draft of the State Educational Standard of General Education of the Kyrgyz Republic, submitted for public discussion in July 2021
- 9. Data from the World Bank https://data.woHdbank.org/indicator/NY.GDP.PCAP.CD?locations=KG
- 10. Review of National Policy in the Field of Education. The Kyrgyz Republic 2010. Lessons Learned from the Programme for International Student Assessment (PISA). OECD. World Bank.
- 11. Hou, Dingyong; Acevedo, Karina; de Laat, Joost; Larrison, Jennica. 2021. Building the Right Skills for Human Capital: Education, Skills, and Productivity in the Kyrgyz Republic. International Development in Focus;. Washington, DC: World Bank. © World Bank. https://openknowledge.worldbank.org/handle/10986/34495 License: CC BY 3.0 IGO.
- 12. Ajwad, Mohamed Ihsan; Gonzalez, Sarah Berger. 2018. Jobs in the Kyrgyz Republic. World Bank, Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/30105 License: CC BY 3.0 IGO.
- 13. Statistics of the International Labor Organization https://ilostat.ilo.org/topics/labourproductivity
- 14. UNICEF https://www.unicef.org/kyrgyzstan/ru/%D0%BE%D0%B1%D1%80%D0%B0%D0%B7%D0 %BE%D0%B2%D0%B0%D0%BD%D0%B8%D0%B5
- 15. Report on key findings from the 2017 National Assessment of Educational Achievement (NAEA) for 8th graders. COOMO. 2017.
- 16. Education for the 21st Century in Kyrgyzstan: Current Realities and the Roadmap for Systemic Reforms Research Summary. University of Central Asia. 2021.
- 17. Program of Education Development in the Kyrgyz Republic for 2021-2040, approved by the Government of the Kyrgyz Republic on May 4, 2021, № 200.
- 18. Instruction time in compulsory education. OECD. https://stats.oecd.org/Index.aspx?DataSetCode=EAG IT ALL.
- 19. Wages and salaries of employees by types of economic activity (dynamic table). http://www.stat.kg/ru/statistics/trud-i-zarabotnaya-plata/.

- 20. Typical list of information and reports performed by employees of general education organizations of the Kyrgyz Republic. http://kao.kg/wp-content/uploads/2020/12/%D0%9F%D0%BE%D1%8F%D1%81%D0%BD%D0%B8%D1%82%D0%B5%D0%BB%D1%8C%D0%BD%D0%B0%D1%8F%D0%B7%D0%B0%D0%BF%D0%B8%D1%81%D0%BA%D0%B0-03-12-2020.pdf
- 21. Regulation on the order of professional development of pedagogical and managerial employees of education of the Kyrgyz Republic, approved by Order of the Ministry of Education and Science of the Kyrgyz Republic dated June 20, 2017.
- 22. Review of trends in the development of school education in accordance with the requirements of the international assessment of student competence (PISA): Conclusions and recommendations for participation in the assessment in 2024. The review was commissioned by the Ministry of Education and Science of the KR. 2019.
- 23. Study on graduates of teacher training institutes and the Kyrgyz Academy of Education. The study was commissioned by the Ministry of Education and Science of the Kyrgyz Republic. 2017.
- 24. Report "Study of effectiveness and quality of the system of training and retraining/refresher training of school education employees (management personnel of educational institutions (directors and head teachers), heads of school methodical associations, heads of raion educational organizations, methodologists of raion level)".
- 25. A.P. Ivanov. Managing the Quality of Teaching in Kyrgyzstan. A Situational Study. 2017.
- 26. Conducting a functional analysis of the Ministry of Education and Science of the Kyrgyz Republic and its regional divisions. Prepared by order of the Ministry of Education and Science of the Kyrgyz Republic. 2020.
- 27. Consistently high performance: Lessons from the world's top performing school systems // McKinsey&Company. June 2007.
- 28. Takashi Yamano, Hal Hill, Edimon Ginting, and Jindra Samson, Kyrgyz Republic Improving Growth Potential. Asian Development Bank. 2020
- 29. Educational attainment will never be higher than that of teachers. 2019 https://rus.azattyk.org/a/30292666.html
- 30. Teacher shortage. Fewer is better. 2015. https://rus.azattyk.org/a/26836970.html
- 31. Kyrgyzstan still lacks 2,000 teachers. 2021. https://rus.azattyk.org/a/31438577.html
- 32. https://www.gov.kg/ru/post/s/russkiy-vitse-premer-ministr-damira-niyazalievaministerstvozdravoohraneniya-i-ministerstvo-obrazovaniya-negotovo-segodnyavozvrat-sredstvvyidelen
- 33. Analytics: what a teacher's salary is made up of and how much it ends up being (2019)https://kaktus.media/doc/398160_analitika :_iz_chego_skladyvaetsia_zarplata_yc hitelia_i_skolko_polychaetsia_v_itoge.html
- 34. Materials on the question "On the readiness of general educational organizations for the new 2018-2019 school year". https://www.gov.kg/wp-content/uploads/2018/07/RUS- Materialyidlyazasedaniya-Gotovnost-shkol-k-2018-2019-rus.pdf.
- 35. Strategy2050.kz: https://strategy2050.kz/ru/news/kak-budut-povyshat-kvalifikatsiyu- pedagogov-v-kazakhstane/.
- 36. Analysis of additional sources of funding in the system of school education. March 2020.