IMPROVEMENT OF MANAGEMENT AND FINANCING OF SCHOOLS

Results of financing and management reforms of secondary schools in Kulob city and Vakhsh district of Khatlon region, Tajikistan

September 2012

The analysis is carried out based on the study of strategic and research documents, statistics and the results of a survey about activities and achievements of the USAID "Quality Learning Project" on implementation of per capita financing in schools of Kulob city and Vakhsh district of the Republic of Tajikistan. The document has a research and advisory nature and reflects only the views of the author.

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LIST OF ABBREVIATIONS

PTA	Parents and Teachers Association
GDP	Gross Domestic Product
GBAO	Gorno - Badakhshan Autonomous Region
CED	City Education Department
EMIS	Education Management Information System of the Republic of Tajikistan
MO	Ministry of Education
EFWG	Education Financing Working Group
PC	Parents Committee
DED	District Education Department
RT	Republic of Tajikistan
MSEP	Midterm program of state expenditures

INTRODUCTION

RELEVANCE

Introduction and roll-out of per capita financing mechanism in the Republic of Tajikistan (RT) is carried out according to the government decision of the Republic of Tajikistan and is implemented in Tajikistan for the effective use of financial resources and improvement of management of educational institutions (schools). Per capita financing mechanism is one of the directions of the state policy in the field of education and one of the most important mechanisms to reform the country's education system. As noted in the draft National Strategy for Education Development up to 2020 "...per capita financing will be a major mechanism for the distribution of the budget funds allocated for the financing of education. Allocation of funds from the state budget, result-oriented, will be an integral part of the reforms of management of state expenditures in secondary education. This will improve the efficiency of budget spending and will help increase the availability of quality education for different groups of populations."[1] On this basis the analysis of the results related to per capita financing in educational institutions of the republic is relevant.

This work is an attempt to analyze the results of the introduction of per capita financing in the framework of the USAID Quality Learning Project (QLP) in its target areas of Kulob city and Vakhsh district of Khatlon region. In addition, the study reflects the activities and role of the project in these areas. The target groups of this analysis were the specialists from the Ministry of Education, education and finance departments, school principals from the pilot areas, school accountants and representatives of schools public associations.

GOALS AND OBJECTIVES OF THE ANALYSIS

The goal of this analysis is to attempt to identify and evaluate changes in the financing and management of educational institutions, which take place as a result of introduction of per capita financing in schools in the Republic of Tajikistan. The goal predetermined the needs to address the following problems:

- Study of the strategic and research papers as well as statistics on the reform and financing of the general education system in the Republic of Tajikistan;
- Analysis of the current situation in the reform of school financing and management, analysis of reports and materials of USAID/QLP;
- Analysis of indicators of the effectiveness of financing and management in the project pilot schools; and
- Development of recommendations for improvement of the mechanism of per capita financing in the educational institutions.

Tools of research and coverage. The analysis was based on the following instruments:

- Study of reports, policy documents and statistical information on the current situation and strategies for reforming school financing and management in the Republic of Tajikistan;
- Interviewing heads (representatives) of national and local education authorities, specialists, schools' principals and accountants as well as representatives of the PTAs; and

[1] *The draft National Strategy for Education Development up to 2020, Dushanbe, 37 pp*

- Comparative analysis of the dynamics of indicators of the effectiveness of introduction of the per capita financing.

1. OVERVIEW OF THE CURRENT SITUATION, STRATEGY OF REFORM OF SCHOOL FINANCING AND MANAGEMENT IN RT

1.1. The transition of the educational institutions to per capita financing in Tajikistan: historical reference

After the collapse of the Soviet Union, Tajikistan began building a democratic society based on the model of a socially-oriented market economy. The essence of this model is that "the state is the guarantor of decent and safe life for citizens; the state manages the market economy in order to ensure the stability and legitimacy of all processes, which in turn affects the social institutions."[2]

Achieving such a high goal requires the fundamental reforms in all spheres of the country, including in the field of education. As for the education of the younger generation and training of the workforce the primary role has always belonged to the education system, therefore the effective usage of state resources for maintenance and development of the educational institutions are one of the main priorities of the state policy.

Unfortunately, after obtaining the independence due to long civil war (1992-1997) and the needs of post-conflict reconstruction (1998-2001), the education sector could not be the subject of radical reforms until 2005 (and in some regions until 2010) and the education system continued to be financed by Soviet methods and principles. The school finance system that existed until 2005 was based on the so-called "expenses" principle. This principle means that the district education departments are responsible for the budget formation, excluding the capital costs. Financing of the rural schools was carried out through the budget of jamoat, and school principals did not have the financial and material resources. District authorities estimated expenditure for the next financial year for each item of budget classification and the basis for such planning was the evaluation of staff salaries, which in most of the districts comprised more than 90% of all costs. However, always mistakes and inaccuracies were admitted in the planning of payroll and deductions to social security fund. Therefore, under the "expenses" method of financing the education sector did not fully use the allocated funds and thus there was not efficient usage of the budget funds.

Overall under the "expenses" method of financing schools of Tajikistan the following disadvantages took place:

- Since under the "expenses" method a budget line for salary is "protected" the saved funds under this line were not allowed for the reallocation to other purposes;
- Under the "expenses" method the tuition fee per a student in the rural areas is higher than in the urban areas. This was due to the fact that in rural schools class attendance was on average only 50% of the normative; and
- The "expenses" method of financing increased the number of classes. The more classes the more pedagogical rates and payroll, therefore less funds were

[2] *Socially-oriented market economy// http://www.macro-econom.ru/economs-1100-1.html*

left for other budget items. This approach made it impossible to use the funds allocated to other budget items, except for salary.

The transition from the "expenses" method of financing of the secondary education in the Republic of Tajikistan to the method of normative (per capita) financing is one of the steps in the introduction of market mechanisms in management of state funds as well as in the education system as a whole. The introduction of normative (per capita) financing has become a part of measures to increase the efficiency of usage of state funds and reforming management system of the general education. For the first time in Tajikistan, policymakers have begun to discuss implementation of the normative (per capita) financing in 2004. The government of Tajikistan approved the development plan for the education sector for 2004 and 2009[3] on June 30, 2004, which is considered one of the most important documents for reforming or restructuring of the education system.

According to this plan:

- As of September 1, 2004 new standards of teaching workload for teachers of 1-4 classes is 18 hours per week (it was 16 hours), for teachers of 5-10 classes - 16 hours per week (used to be 14 hours) were set;
- As of September 1, 2004 the tariff rates for teachers of the educational institutions were increased by 25% due to changes in curriculum and increase of the current rates of teaching workload;
- Reduction of the total number of employees of the education system by 5%; and
- For implementation of this plan a group of experts was set up to develop a pilot model of per capita financing.

In 2005, five districts (Vahdat, Kulob, Khujand, Khorugh and Yovon) began a pilot initiative for introduction of per capita financing the general education. It was realized on the basis of Regulation #441 of the Government of the Republic of Tajikistan, dated 01/10/2004 "On the transition of the educational institutions of Yovon and Kulob of Khatlon region, Khujand of Sughd region and Khorugh of Gorno-Badakhshan Autonomous Region and Vahdat to new methods of management and financing" with technical and financial support from donors such as USAID, World Bank, German technical assistance, Aga Khan Foundation and the Institute of Open Society (Soros Foundation).

For introduction of the mechanism of normative (per capita) financing in the general education pilot areas, the Ministry of Finance and Ministry of Education has developed the instruction for normative (per capita) financing in the general education institutions. The above-mentioned instruction set new conditions and procedures for financing per student in the general education institutions.

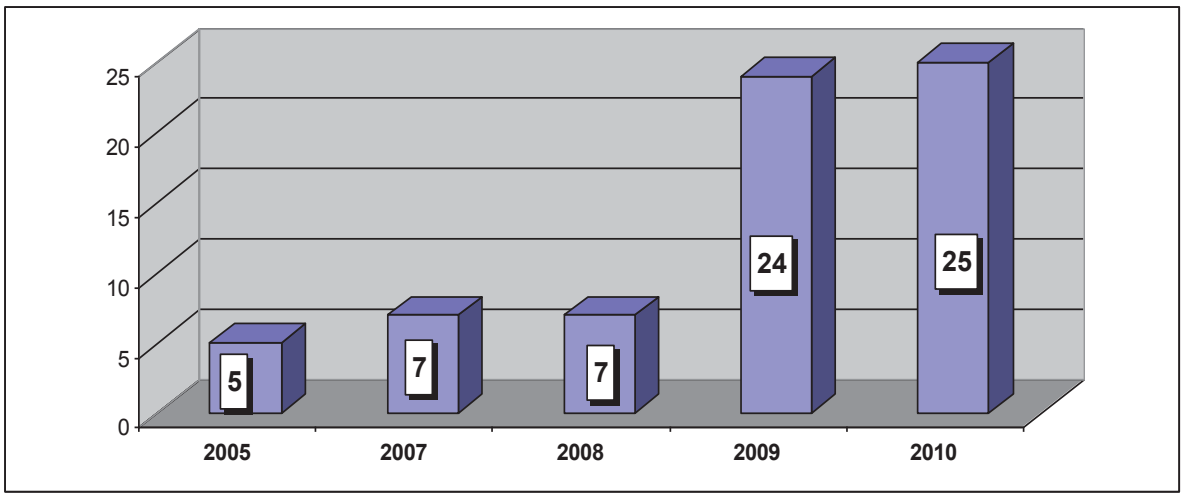
After successfully piloting of per capita financing model the government of RT had gradually began to introduce it to all districts of the country. For example, the government adopted the Decree #502 "On transition of the educational institutions to new forms of management and financing" in November 2006 to expand the reforms in the financing and management of education. According to this decree the educational institutions of Sarband of Khatlon region, Bobojon Gafurov, Kairakkum and Chkalovsk of Sughd region, Shugnan of Gorno-

[3] *Regulation of the government of the Republic of Tajikistan about plans for reforming of the education sector for 2004 and 2009, "Omuzgor" newspaper, dated 8 July 2004.*

Badakhshan Autonomous Oblast, Shohmansur of Dushanbe and Shahrinav have been transferred to new forms of financing from January 1, 2007 in addition to the continuation of the pilot in the aforementioned cities and regions.

In 2007, the government of the Republic of Tajikistan issued the Regulation #350 "On stages of transition of the educational institutions to new forms of management and financing", which allowed transition of the educational institutions of Nurek, Khatlon region, Sino, Firdausi and Ismail Somoni, Dushanbe, Rudaki, Hissar and Tursunzade to new forms of financing from January 1, 2008. Also this regulation approved the plan for transition to a normative (per capita) financing of the educational institutions of the Republic of Tajikistan for 2008-2010. According to this plan the mechanism of normative (per capita) financing has been introduced in all secondary schools in the country by 2011 (see diagram 1).

Diagram 1. The number of districts that have been transferred to per capita financing



The system of per capita financing is aimed at the results of the educational institutions and provides the additional incentives to improve the quality of educational services. It allows school principals to independently resolve the organizational problems; determine the value and types of expenses, methods of work with the staff and effective usage of the material and technical base.

1.2. The system of financing of school education in RT: analysis of the situation and reform strategy

Mechanism of financing of the education sector

Education is one of the priorities of socio-economic development of the Republic of Tajikistan, therefore financing of the education system is mainly done by the state budget. The latter is divided into republican and local budgets. The republican and local budgets are financing all state educational institutions as they are in subordination of state authorities and are state property. According to the law of the Republic of Tajikistan "On state finances of the Republic of Tajikistan" (Law #308 of RT as of July 30, 2007) the state budget funds activities of the educational institutions at national level, and activities and development of

the educational institutions under the jurisdiction of the local authorities are funded from the local budgets.

Besides, according to the law "On Education" an educational institution in the framework of the legislation of the Republic of Tajikistan entitled to attract the additional financial resources, include foreign currency by offering additional chargeable services and other activities envisioned in its charter as well as by charity and contributions of individuals and legal entities, including foreign entities. This indicates that the legislation allows the educational institutions to attract additional funds, including foreign currency in the framework of the legislation of the Republic of Tajikistan.

According to article 43 of the law "On Education," the additional sources of financing of the educational institutions are:

- Incomes from sale of products, work and services provided by education institutions;
- Funds from provided work, scientific and methodological services;
- Training and retraining of personnel of the state educational institutions on the contract basis;
- Commercial and industrial activity in the educational process and other activities that are not prohibited by the legislation of the Republic if they do not go to the detriment of the main activities of the educational institution;
- Voluntary donations and other funds from the government, non-governmental and public organizations and individuals; and
- Loans from banks and microfinance institutions.

According to the law "On Education," parents (or persons replacing them) can make voluntary contributions to the state educational institutions for maintenance of classes, school buildings and purchase the necessary of training equipment. For the time being, parents' contributions and payment for the additional chargeable educational services is a valuable support along with the state budget.

The targeted usage of voluntary funds is made by decision of the parent committee on the basis of unified estimation of expenses that is provided by the educational institution. Guarantor of transparency of usage of budget funds by an educational institution is the school public organizations (Parents and Teachers Associations, Board of Trustees, Parents' Committees, etc.). They have the right to participate in the process of school budget formation and to offer proposals and suggestions as well as to request information about usage of both budget and extra budget funds of the school.

According to the legal-normative acts the additional chargeable services in state institutions of the secondary education might be organized only by request of parents (or persons replacing them) on the contract basis. Estimation of incomes and expenses of the additional chargeable services is made in accordance with the list of additional chargeable services rendered by the state educational institutions of RT (Order #365 of the Minister of Education, dated April 25, 2006).

The schools are independently carrying out all activities for organization of the chargeable services, but they must comply with the following requirements:

- Make timely payments to employees engaged in works and services according to their business profile;

- Comply with the requirements of safety, environment, sanitation and hygiene, health and safety;
- Keep accounting records in accordance with the laws on accounting for income and expense of the budget organizations; and
- Submit reports about their activities to the appropriate authorities in the prescribed manner.

To obtain extra budget the schools have to open a special account in the district/city treasury department. The opening and usage of special accounts is regulated by the regulations on extra budget funds, approved by Order #74 of the Minister of Finance of the Republic of Tajikistan, dated April 27, 2001.

Most educational institutions are governed by local authorities, therefore financed from local budgets, most of which receive a subsidy from the state budget and their incomes are not always formed only by the collection of local taxes. Since the volume of tax revenues to the local budget differs for various geographical areas and depends on many factors, such as the number of local entrepreneurs, development of agricultural and industrial enterprises, there was a huge difference in the formation, distribution and usage of financial resources for education. All that led to the formation of the following specific characteristics of financing of the educational institutions in Tajikistan:

1. **The close relationship with the local budget.** This means that the local budget shortfall leads to underfunding of expenses of the educational institutions, including expenses associated with the strengthening and maintenance of the material and technical base of the educational institutions. Increased level of revenues to the budget leads to additional financing of the educational institutions. On this basis the budget execution in the education institutions has greater regional differentiation, which is due to the flow of revenues to the budget of local authorities.

2. **The lack of autonomy of the educational institutions in usage of funds.** Since the educational institutions are mainly financed from the state budget the government strictly controls over cost-effective and rational spending of budget funds according to the laws of the Republic of Tajikistan "On state finances of the Republic of Tajikistan" and "On treasury in the Republic of Tajikistan in contrary to the commercial structures, which have a principle of autonomy for financing. Therefore the educational institutions use the budget funds through bank account of budget organization, and non-budget funds through special accounts, which are maintained and are controlled by the treasury. This is done to separate budget financing and attracted funds. Each group of funds is keeping in separate accounts. For each of the groups a separate budget for their expenditure is formatted and each of the groups has its own accounting.

3. **Government fiscal authorities control over effective expenditure of funds.** Like other budget organizations the state educational institutions must adhere strictly to the purposes for which these funds are allocated. A commercial organization can use the funds received as payment for goods or services provided for any purpose, like increase salary of its employees or for charity, but an educational institution does not have such freedom of action. The educational institutions can use the funds received from the state budget or self-earned only for the purposes indicated in the budget.

The essence of the mechanism of normative (per capita) financing of the educational institutions

All educational institutions in the Republic of Tajikistan have moved to a normative (per capita) financing on January 1, 2011. The transition to the normative system of financing has the following objectives:

- Increase efficiency of budget funds;
- Ensure schools autonomy in planning expenses and extra budget incomes;
- Promote competition among schools to improve the quality of education;
- Control over the funds usage by self-governance structures and parents;
- Optimization of the school network; and
- Creation of preconditions for more rational organization of school financing and their activities, cost savings and targeted redistribution.

Normative budget financing determines the minimal cost of education per student for a year for each type (form) of an educational institution and serves as the legally guaranteed rate of expenditures. The minimum normative for calculation of school budgets is determined at the national level by a decision of the government of Tajikistan. They are calculated based on the actual state expenses for education. An analysis on expenses incurred by type of school and specific features of regions and schools is carried out for determination of the normative.

Based on this the economists call it "normative of the opportunities," not "normative of the needs." Despite this, the introduction of normative (per capita) financing allows to fund a school not as an object, but as a provider of the educational services, i.e. its activities. Accordingly, the normative give the opportunities to an educational institution to plan its budget, use the allocated funds as well as to create and use extra budget funds.

Normative financing is also needed for the state financial agencies and education departments for purposeful planning and "transparent" allocation of financial resources in the education sector as well as to eliminate the differentiation of state financing of the educational institutions throughout the country.

There are two types of normative in Tajikistan: normative per student and normative for type of educational institution. The normative covers all operating costs, except for capital construction and expenses for teacher training. This system offers a flexible approach as the level of expenses per student in Tajikistan is largely dependent on the size of an education institution and the costs of teaching the national curriculum. Besides, each school has such expenses, which fixed or change gradually due to changes in the number of students, because the educational institutions are significantly differing by size. In addition to the normative, the district coefficients are using in Tajikistan, which designed to take into consideration several influencing factors. These factors include the characteristics of the curriculum, statutory additions to the salary, population density, and the climatic conditions (usually duration of the heating season and average temperature of the season) that are applicable to all organizations of this district.

The school budget under normative (per capita) financing is developed independently by the school administration and has to be agreed with the school self-governance structure (PTA or Parents Committee). This increases efficient and transparent usage of the state funds as the

heads of institutions or associations have the opportunity to make decisions aimed at reducing the cost of certain items and distribution of resources to the priority directions.

After that the school principal presents it for approval to the education department and then for approval to the finance department of district (city). The finance department of the district (city) passes the agreed and approved budget to the treasury of district (city) for financing. An analysis of the used resources should be carried out in order to use the saved funds through fiscal year, and then a request with justification on utilization of the savings should be submitted to the finance department of district or city. The request and justification should be supported by the minutes of the meeting of the trade union committee of the school. In the process of approval of the school budget, the wage bill is taken without consideration of increase during the year. Finance departments of districts (cities) have the right to amend the approved budgets of schools using funds allocated for this purpose in the budget of districts (cities) at the next salary increase to cover payroll.

School funds come as a package, calculated according to the formula without breakdown to the budget classification. Before the schools will be provided with funding, the education department has to do a computerized analysis of the school budgets. This means that it is necessary to calculate the budget for each school. When a school is identified whose budget is insufficient to cover the salary fund the finance department of district (city) have the right to redistribute up to 5% from funds allocated to the schools. After the redistribution of funds by finance departments of districts (cities) the schools must receive at least 95% of their budget formatted according to the approved procedures.

One important tool of the financial management is the class size and the number of classes. As class sizes were typically small under the old system (as more classes correlated to higher budgets), under normative financing if a school principal sees that the average class attendance is below the norm he/she may review the entire student contingent and, where possible, combine classes. This also allows to adjust the payroll of the school. Experience of school principals from the pilot schools shows that those educational institutions which correctly form class attendance and their number (during the process of developing the budget of their educational institutions) were able to allocate enough money not only to pay salary to the school employees, but also for other expenses such as purchase of furniture, equipment, school maintenance, etc. Issues such as lack of funds to pay salaries or other expenses lines typically take place when a school principal misunderstands the importance of this issue.

Under normative financing, school principals know that it is necessary to direct resources to achieve targeted goals and objectives. This is very important as the educational institutions like all public institutions are in need of the financial autonomy. However, as practice of implementation of normative financing in the Republic of Tajikistan shows in some districts (cities), specialists of government structures still do not understand the essence of school financing reform. Unfortunately, even after five years of implementation of normative school financing, interviews with several school principals throughout the country indicate that government agencies still decide for the school the level of funding they will receive and for what purposes they should be spent, what would be staffing and what salary to pay to the employees. In such cases, the school administrators are not able to appropriately and promptly use the allocated funds.

The strategy of reforming of management and financing of the educational institutions of the republic

The economic and financial policy of the government of the Republic of Tajikistan is based on the priorities set out in the National Development Strategy for the period up to 2015 (Regulation #166 of the government of the Republic of Tajikistan, dated April 3, 2007) and Poverty Reduction Strategy for 2007-2009 (Regulation #167 of the government of the Republic of Tajikistan, dated April 3, 2007). The education sector is one of the main priorities in government spending and in accordance with the above regulations the government of Tajikistan is taking steps to regulate the number of teachers, teaching workload and salaries of teachers, introducing the per capita financing mechanism, which improves the financial situation of the educational institutions.

Over the past few years, the government of the Republic of Tajikistan has taken steps to review funding priorities in order to assist in promotion of the education sector, but with preservation of the priority of general education (grades 1-11). According to Regulation #409 of the government of the Republic of Tajikistan "Implementation of the Midterm program of state expenditures in the Republic of Tajikistan" dated September 7, 2006, starting from 2007 the financing of the education system is part of medium-term state expenditure programs along with the priorities of its development.

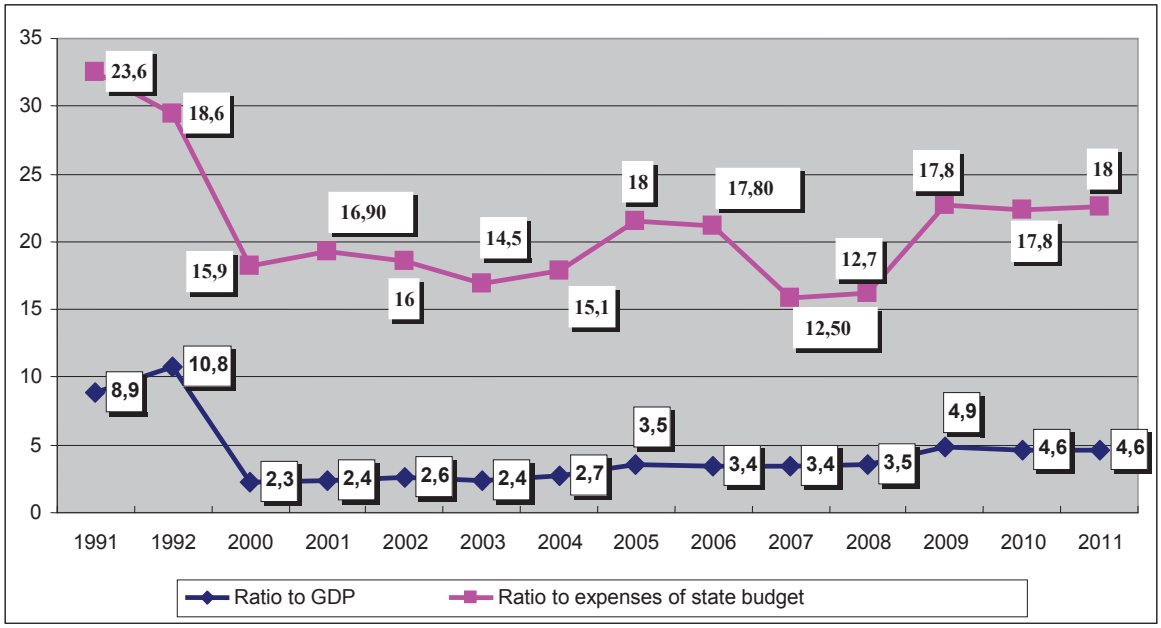
The Poverty Reduction Strategy for 2010-2012, approved by Parliament on February 2, 2010 envisaged increased financing for the education sector up to 7% of GDP. Moreover, according to the Midterm program of state expenditures for the period of 2011-2013, the total expenditure of the education system in 2012 was anticipated to reach 1.7 billion and 2.1 billion somoni in 2013.[4]

The financial resources of the education system

In recent years, according to the absolute terms, financing of the education sector is significantly increased, which is closely related to the growth of macroeconomic indicators and the revival of the national economy as a whole.

[4] *National Report on Development of Education Sector of the Republic Tajikistan,2011, 79 pp*

Chart 1. Education financing in relation to GDP and expenditures of the state budget[5]



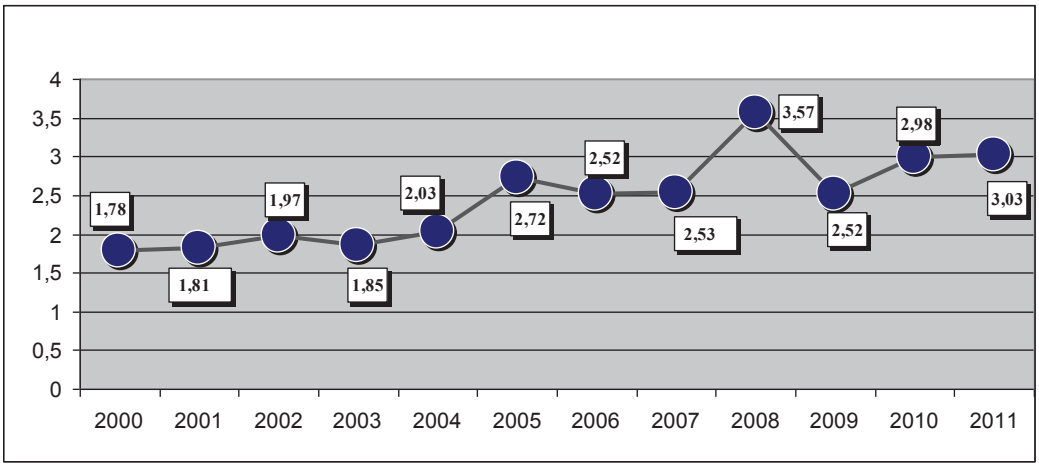
According to Chart 1, financing for education made up 4.6% of GDP in 2011. This figure is much higher compared to the beginning of the new millennium, however it is much smaller in relation to 1991 and 1992, when financing of education in relation to GDP was respectively 8.9% and 10.8%. Education expenditures compared to total government expenditures in relation to the beginning of the 1990s are low too, and ranging between 16% and 18% over the last decade.

In absolute terms, increase of financing for education is significantly high. For example, in 2011, financing for education made up 1.368 billion somoni (288 million U.S. dollars), which is 32.5 times higher than the same figure for 2000. And compared to 2005, it is more than 5.3 times.

With increasing macroeconomic indicators and financing of the education system, the financing for the secondary education in the Republic of Tajikistan is also increasing (see Chart 2).

[5] *Source: developed by the author based on the following sources: 1) National Report on Development of Education Sector of the Republic Tajikistan, Dushanbe 2011. 2) Ismonov F., Development of Education Financing at the time of independence , Dushanbe 2011*

Chart 2. Dynamics of financing of the secondary education ratio to GDP



If financing of the secondary education in 2000 made up 1.78% of GDP, in 2009 it was 2.52% and 3.03% in 2011. This indicator has doubled over 10 years.

The growth of education expenditures in GDP and total expenditures of the state budget as well as due to increased spending on the secondary education are leading to increase of expenditures per student (see Appendix 2). This indicator was only 30.4 somoni in 2001, 104.0 somoni in 2005, 446.4 somoni in 2010 and 507.22 somoni in 2011. This indicator has increased by 16 times over 10 years. At this rate also increased the amount of salary of teachers in secondary schools. "Analyses show that salaries of teachers of educational institutions increased almost 22.9 times from 2000 to 2010."[6]

However, it should be noted that the increase in financing of education is accompanied by rapid growth in the number of students of the educational institutions. "Over the 1991-2011 the number of students of the general education has increased up to 135,000 or more than 7%, and the average annual growth rate is 1%."[7] Such an increase in the number of students requires new classes, new conditions and more resources, which lead to increased complexity and reduction of the impact of financing on the quality of education services.

1.3. The role of USAID "Quality Learning Project" in reforming of the school education

The Quality Learning Project funded by the U.S. Agency for International Development started its operation in 2008 and has provided technical support to the Ministry of Education in reforming of the school education system. The mechanism of cooperation and technical assistance to the Ministry of Education is clearly stated in the memorandum between USAID/QLP and the Ministry of Education of the Republic of Tajikistan signed in 2007. The project has several activities, including helping to improve the financing and management of educational institutions. Technical assistance of the project includes:

1. Development of training modules;
2. Conduct training of trainers;
3. Conduct training;

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[6] *National Report on Development of Education Sector of the Republic Tajikistan, 79 pp*
[7] *Source: developed by the author based on the following sources: 1) National Report on Development of Education Sector of the Republic Tajikistan, Dushanbe 2011*

4. Conduct working meetings;
5. Conduct technical seminars and meetings in order to establish an accounting system in schools, establishment of PTAs and the procedures for transition to per capita financing;
6. Participate in the Education Financing Working Group;
7. Conduct monitoring PCF;
8. Setting up resource centers at education departments of Kulob and Vakhsh;
9. Optimization of the schools;
10. Expansion of state-public management of educational institutions;
11. Installation of an automated expenditure tracking system;
12. Conduct monitoring;
13. Develop recommendations for improvement of performance and capacity building;
14. Exchange of experience for representatives of local hukumats, education and finance departments, school principals and accountants as well as representatives of PTAs;
15. Support the conduct of budget hearings in schools; and
16. Mentoring of school principals and accountants, specialists of education and finance departments.

One of the main activities of the project is the development of new modules, training of trainers and capacity building. That contributed to creation of a uniform system for the study of per capita financing in the educational institutions and methodological support of stakeholders (district education departments, finance departments, principals and accountants of the schools). The project contributed to the development and improvement of three modules: Practical Accounting for accountants of educational institutions, Financial management for school principals, and a training module for school associations titled "Involvement of PTAs in the process of increasing transparency and accountability in usage of the school budget." Development and introduction of these modules was carried out in several stages through approbation training and review by professionals at various levels. The developed modules have been approved by the board of the Ministry of Education and are being used not only by the republican and regional teacher training institutions, but also other international organizations that provide technical support to introduce per capita financing in the Republic of Tajikistan.

It should be noted that the project also developed a guidebook for trainers for each above-mentioned training module and has trained about 100 trainers from various regions of the country; half of them are working closely with the teacher training institutes. The project conducted the six-day accounting training not only in its pilot areas (Kulob and Vakhsh), but also in an additional 24 districts and cities of the country. On the basis of these modules, the project conducted training for the heads of district finance department, treasury specialists, economists and accountants of education departments of cities and districts, school principals and accountants as well as representatives of the Parents and Teachers Associations.

Table 1. Number of trainings conducted for the period March 2008 to May 2011

Indicator	Kulob	Vakhsh
Number of conducted training for school principals (8-day and 3-day)	5	5
Number of conducted training for accountants (6-day and 3-day)	7	8
Number of conducted training for PTAs(2 and one-day)	4	6
Total	**16**	**19**

Source: USAID/QLP reports

According to Table 1, in the project pilot districts, 35 trainings for school principals and accountants as well as for representative of PTAs were conducted from March 2008 to May 2011. Amirov D., the head of Kulob education department expressed his opinion about the training: "That training conducted by Quality Learning Project enabled specialists of district education and finance departments, principals and accountants of the schools and the PTAs to understand the nature, principles and mechanisms of implementation of per capita financing in secondary schools. Through these training the mechanism of per capita financing in the country has been improved and we gradually started to introduce new methods of management in educational institutions."

One important approach in the provision of technical assistance is training and technical workshops in order to create an accounting system in schools, organizations and development of PTAs and the procedures for transition to per capita financing. The project conducted more than 15 meetings and seminars in Kulob and Vakhsh with the participation of representatives of the Ministry of Finance, Ministry of Education, NGOs, local government authorities and other relevant bodies. According to Ismonov F., the Deputy Minister of Education: "The conduct of training and technical workshops allowed to convey new changes and mechanisms of introduction of per capita financing to finance departments, local authorities and public organizations. They allowed for the creation of a coalition to introduce per capita financing in the country. If there would not be training and technical workshops of the Quality Learning Project, the pressure on educational institutions from the financial department, treasury and local authorities would be greater." The experience of the project specialists in conducting training and technical workshops helped the Ministry of Education through the Education Financing Working Group (EFWG), which was created by Order #401 of the Ministry of Education Tajikistan in April 2008.

The Ministry of Education is actively using not only financial resources, but also the experience and expertise of the project specialists to monitor the per capita financing in other districts and cities of the country. The project specialists together with the Ministry of Education and Ministry of Finance conducted monitoring of per capita financing in Vose, Baljuvan, Temurmalik, Hamadoni, Muminabad and Khovaling districts of Khatlon region and Ayni, Penjikent, Spitamen, Istaravshan, Zafarabad, Chkalovsk and Kairakum of Sughd as well as Varzob, Tursunzade, Rudaki, Hissar and Shahrinav. Monitoring is based on indicators developed and proposed by the project to evaluate the implementation of the reforms.

With project support, resource centers at education departments of Kulob and Vakhsh were established and equipped with computers, printers, furniture, tables, furniture, handouts and

literature. School principals and accountants as well as any interested person can get advice or find the necessary information and literature on financing and management of schools in these centers.

In order to improve management of educational institutions and attraction of extra budget funds the project contributed to formation of new and revitalization and development of the existing Parent Teacher Associations (PTAs). As it appears in Table 2 there are public organizations in many schools which are functioning as PTA. With financial and technical assistance of the project, 30 PTAs received the status of an independent legal entity. This means that they are registered as a public organization and is an independent organization with mission to assist in operation and development of the secondary schools.

Table 2. Information on the number of PTAs in schools of Kulob and Vakhsh

	Name of area	Total number of schools with PTAs	Of which	
			Operate as a legal entity (registered)	Operate as self-governance body (not registered)
	Kulob	46	15	31
	Vakhsh	59	15	44
	Total	**105**	**30**	**75**

Source: USAID/QLP reports

In the framework of the project, a 16-hour training module "Involvement of PTAs in the process of increasing transparency and accountability in usage of the school budget" for school principals and chairmen of PTAs has been developed. The module was tested in September 2009 and ToT was conducted in January 2010 under this module. PTAs chairmen and school principals of Kulob and Vakhsh were trained based on the material in this module. In coordination with the Ministry of Education the specialists of RTTI conducted 2-day training for 24 districts, which have been transferred to per capita financing in 2010. In total, more than 200 people have been trained based on this module in the targeted areas. The goal of the training module is to form an understanding of the importance of involvement of PTAs to the process of increasing transparency and accountability in usage of the school budget in the transition to a new school financing mechanism.

In the framework of the project, a computer model of an automated expenditure tracking system for monitoring of per capita financing has been developed, which allows not only to have a database of schools financing, but also allows to generate the graphical reports and comparative charts of various financial and quantitative indicators. In addition to the targeted areas of the project, the system is installed in Vahdat, Nurek, Tursunzade, Rudaki, Shahrinav and Hissar. Specialists of education and finance departments of the above cities and districts were trained to use the system. The Ministry of Education issued an order, which requires the education departments to collect data from each school, summarize them and send them to the regional coordinators on per capita financing, which are then sent the consolidated report the ministry. The database of the automated system is actively used by specialists of MoE RT for analysis and decision making prior to creation and implementation of the education management information system of the Republic of Tajikistan (EMIS).

For practical training on mechanism of per capita financing a mentoring and the exchange of experiences were organized by the project. School principals and accountants noted during

the interviews that these mechanisms are very effective and will improve their skills and knowledge and contribute to the successful introduction of per capita financing. They believe that the exchange of experience and monitoring allowed them to understand better the essence of per capita financing and improved planning as well as the process of estimating of incomes and expenses. The project reports indicate that the exchange of experience was covered by a wide range of stakeholders, such as representatives from the Ministry of Education, Ministry of Finance, local authorities, education and finance departments, principals and accountants of schools as well as representatives of PTAs. These activities of the project enhanced the capacity of specialists at various levels from different stakeholder organization.

2. IMPLEMENTATION OF THE REFORM OF SCHOOL FINANCING AND MANAGEMENT AT VARIOUS LEVELS IN KULOB AND VAKHSH

2.1. Increased autonomy of schools

One of the main effects of introduction of per capita financing is to increase the autonomy of schools. "Autonomy is denial of dictates of the education authorities, weakening dependence of educational institutions from them and the needs to change their interaction with schools (a partnership and mutually beneficial relations, contractual relations). Autonomy does not mean complete independence and autonomy of educational institutions from the state and public control, from territorial education systems as practice of self-isolation; school closure would distort the principle of autonomy."[8] Autonomy is not only a significant increase in the autonomous rights, powers and jurisdiction; it is, above all, increased responsibility of educational institutions and administration.

For secondary schools in the Republic of Tajikistan autonomy means freedom from funding through jamoats (self-governance body of towns and villages) and district (city) departments of education and organization of accounting department in secondary schools. Autonomy is obtained by acquittal of schools from balances of jamoats and other structures and their registration in the justice departments. Also, the schools must have the technical certificate and certificates for land usage. Then schools begin to dispose the allocated resources and all assets, buildings and premises should be transferred to the school balance from jamoats and education departments' balances school transferred.

In general, the autonomy of school is based on the following factors:

- School principals obtains autonomy in the budget formation and allocation of financial resources;
- Heads of educational institutions have the opportunity to attract other financial resources to the budget, such as money from organization of additional chargeable educational services, fundraising, from sponsors, grants, investments, which are then used for any purpose, including the payment of bonuses to teachers; and
- School principals can hire and fire the non-teaching staff on a contractual basis.

[8] *National Report on Development of Education Sector of the Republic Tajikistan, Dushanbe 2011, 83 pp*

School autonomy and economic independence of principal are a relative term compared to other autonomous entities, such as associations, corporations, companies, etc. The school principal has autonomy only in the budget formation and attraction of extra budget funds from various sources. However, on formation and use of financial resources the school principal must comply with existing regulations that set by financial authorities or the Ministry of Education. For example, the school principal will not be able to use their own financial resources form one budget lines for other purposes without the consent with finance department. Therefore, the school budget is approved by district (city) education and financial departments. All secondary schools have correspondent accounts in the treasury. They also have the right to open a special account for attraction and usage of extra budget funds.

Many school principals do not always accept that they have "independence" and "school autonomy." They believe that sometimes they do not feel this independence and autonomy as the district education and finance departments, local hukumats (authorities) and treasury continues to dictate conditions to them regarding allocation and use of financial resources.

These district structures intervene in tender processes, receipt and provision of cash, financial transactions, and in management of staff. According to one of principal of a Kulob school, interference in the activities of school principals has increased in recent years and the school cannot get the requested amount of money in a timely manner. All of this puts into question the autonomy of schools in financing and management. According to him, while school budgets are tightly controlled by treasury and finance departments, it is meaningless to think about autonomy and ensuring efficient usage of the school budgets. During discussion one of the mentors of the project in Vakhsh district also noted that some school principals of Vakhsh district also complain about interferences by the finance and treasury departments on usage of financial resources and proceeding of financial operations.

2.2. Organization of accounting in schools

Autonomy of schools is also provided by organization of accounting in the school itself. Tajikistan legislation requires school principals to create the conditions necessary for the proper accounting and ensure implementation of requirements of the chief accountant on arrangement and provision of accounting documents and information to all organizations and their employees related to accounting.

Our research showed that the organization of accounting in schools is faced with two key problems: very low level of knowledge of accountants and a high turnover of staff in accounting services. The coordinators on per capita financing in Kulob and Vakhsh told us that almost all accountants have special accounting qualification and many of them do not know the characteristics of the educational institutions. Accountants with higher qualification and extensive experience do not want to work in educational institutions because of low wages. In order to enhance the knowledge of accountants and strengthen their capacity the project has done a lot of work. Technical support to accountants from the project specialists in addition to also included counseling, provision of normative-legal regulations, ongoing mentoring, etc. The project organized training on computer skills for accountants in pilot districts on accounting in budget organizations and financial management in educational institutions. As we noted in the first paragraph, the project conducted 6-day training in 15 pilot areas for accountants of educational institutions.

During the project the training module "Accounting and reporting in educational institutions of the Republic of Tajikistan" for accountants of educational institutions was developed, which provides a detailed information about all aspects of the accounting policies in general education institutions. Thanks to the efforts of local developers, regional consultant and the project staff, it became possible to transform the original version, which was previously developed at the initiative of Education Project Implementation Unit of the World Bank, to more practical teaching material. If the original version had ratio of the theoretical and practical materials as 70% to 30%, the revised version changed this ratio 30% and 70% respectively.

"This module can be used in training courses for chief accountants and heads of educational institutions of RT. Training module is designed to enhance the knowledge of accountants of educational institutions, to improve the quality of the financial status and proper accounting as well as educational process at the schools. Much attention is paid to the development of practical skills of the participants in the field of conducting accounting and compilation of accounting (financial) reports based on current laws and regulations, organization of accounting and reporting. The module was tested in August 2009 and two training for trainers were conducted in September 2009 and April 2010. The project had trained 100% of accountants in the targeted areas along with specialists from other areas."[9]

However, despite the best efforts of project specialists, turnover of accountants is very high and this is true not only for the pilot areas, but for all the districts. Turnover of accountants in turn creates a lot of problems for the schools and sometimes leads to underfunding of educational institutions. By law[10], salary of school accountants is calculated as 90% of the salary of the school principal. For example, if the school has 100 students, according to the law the wage of principal is 208 somoni, and if the school has more than 1,600 students - 312 somoni. In that case, the school accountant salary is respectively 187.20 and 280.80 somoni. On this basis, the average salary of accountants is much lower than the average salary of teachers and principals. To solve this problem, some accountants are working simultaneously in two or three schools. The low wage is the main cause for high turnover of accountants in educational institutions and to stop the high turnover is possible only through substantial increase of their salary. In this respect, the project has a positive experience. In the course of several meetings, numerous appeals and comprehensive analysis of the situation in Vakhsh district the district hukumat agreed and authorized to raise the wages of accountants of educational institutions of this district from local resources. According to resolution of Vakhsh hukumat dated February 21, 2012 the wages of school accountants have been increased for two times in comparison to salary of school principal.

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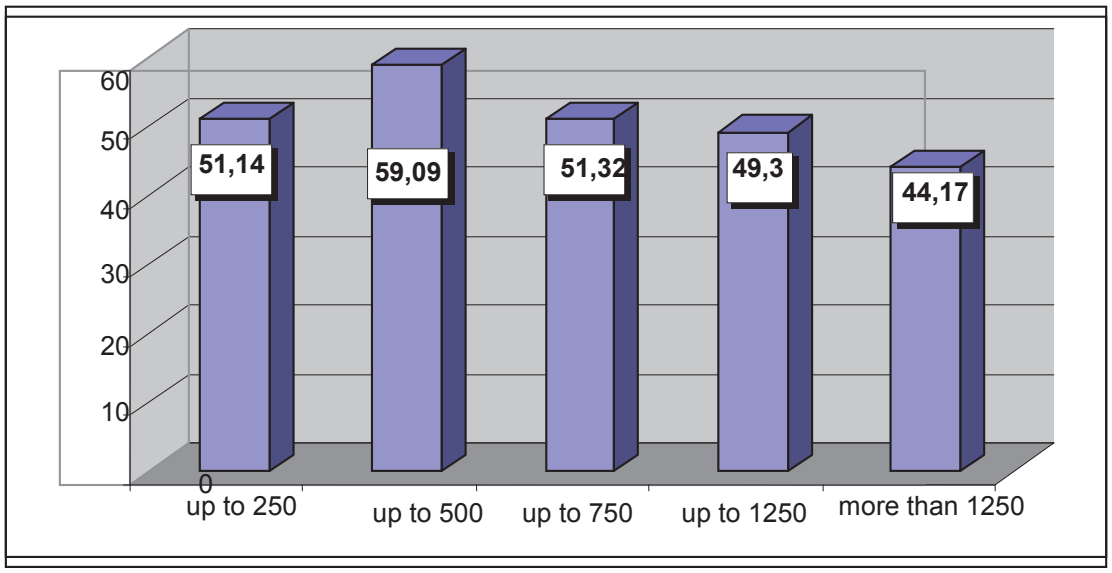
[9] *National Report on Development of Education Sector of the Republic Tajikistan, Dushanbe 2011, 82 pp*

[10] *Bim-Bad B.M. Pedagogical Encyclopedic Dictionary.-M., 2002, 10 pp*

Chart 3. Ratio of wages of school principals and accountants of Vakhsh in 2012 (by school size)(%).



Source: Calculated and compiled by the author based on data of Vakhsh education department

As follows from Chart 3, if a school in the Vakhsh district has 250 students the salary of principal made up 51.14% of accountant salary and if more than 1,250 students the rate is 44.17%. In our opinion, it is not important whether such relationship is right or not, but most importantly in this policy is that it is the main mechanism to reduce "brain-drain of accountants" from the education system. According to Abdurahim Karimov, USAID/QLP specialist increase of accountants' salary by the initiative of local hukumat solved the problem of providing schools with accountants and attraction of highly qualified accountants to Vakhsh district schools.

As we noted, the low capacity and turnover of accounting personnel are common problem to all districts of the country. The experience and contribution of the project in solution of these problems is important mechanism to enhance the accounting departments of educational institutions and increase their autonomy under the new financing form.

2.3. Community involvement in school management and activities of Parents and Teachers Associations

In accordance with the law "On Education" the schools may have different forms of self-governance: the board of an educational institution, teachers' council, the board of directors, board of trustees, parent committees, etc. As we noted in the first chapter in order to involve communities in school management and attraction of extra budget funds the project facilitated the formation of new and enhancement of existing PTAs. As our study showed the role of PTAs in school management is to find additional funds, support the administration in attracting children to learning, providing technical, material and financial assistance for repair of buildings and improve the material and technical base of educational institutions.

However, it should be noted that not all PTAs function effectively and not all registered PTAs function as they should. The main problem of PTAs is poor management. Our observations show that PTAs where management is well organized are successful and

provide helpful support to schools. Some PTAs in the project targeted areas were established by the project initiative as self-governance organization or as a legal entity, but due to poor management they are practically inactive. Of particular importance is the personality of PTA chairman. If a chairman has higher education and understands the nature and content of the activities of public organization from the legislative point of view, is respected by the community and has communication in the society, then such an association has a higher likelihood of achieving its goals and objectives.

Another problem of PTAs is ignorance on the basics of records keeping and documentation. These are the main problems faced by many PTAs. Many of them do not know the formation, distribution and usage of extra budget funds. Therefore, there are conflicts with the school administration. Especially it is true for those PTAs which act as self-governing bodies. According to an accountant of PTAs "many principals still think that PTAs should only collect the parents' contributions and they must be accountable to the school principal. And many PTA chairmen do not know when and about which direction the principals should be accountable to the community". That is why the project developed the training materials and trained both PTA chairmen and principals together.

Despite the problems the practice shows that community involvement in school management allows to the schools in Tajikistan to attract the additional financial resources, carry out maintenance of buildings and structures and improve the coverage of children. On this basis, it is necessary to develop the additional mechanisms to stimulate the PTAs activity and mechanisms for their participation in management of educational institutions.

3. CHANGING OF INDICATORS OF EFFECTIVENESS OF FINANCING AND MANAGEMENT OF SCHOOLS IN KULOB AND VAKHSH DISTRICT

3.1. Changing of financial indicators of effectiveness of financing and management

As we noted in the first chapter financing of secondary education in the Republic of Tajikistan is rapidly increasing in recent years. The ratio of financing of secondary education in relation to GDP has doubled in 10 years. After transition to per capita financing the normative per student is constantly increasing (see Appendix and Table 3).

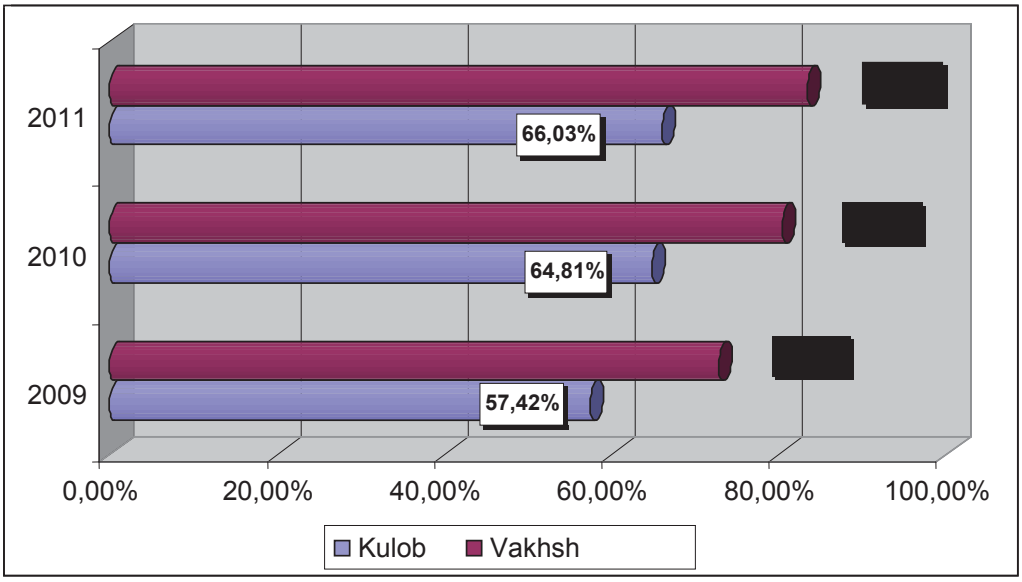
Table 3. Normative per student and school maintenance in 2008-2012

Normative	2008	2009	2010	2011	2012
Secondary school (grades 1-11)					
Per student, somoni	153	222	244	268	327
Per school, somoni	29,324	41,054	45,159	49,675	60,604
Basic school (grades 1-9)					
Per student, somoni	190	276	304	334	407
Per school, somoni	11,807	16,530	18,183	20,001	24,401
Primary school (grades 1-4)					
Per student, somoni	238	345	380	418	510
Per school, somoni	4,251	5,951	6,546	7,201	8,785

** Source: Compiled by the author based on data of USAID/QLP and the Ministry of Education of Tajikistan.*

Trend of rising of indicators for financing per student and per capita normative is observed in the targeted areas too. Despite the fact that there is a single per capita normative for all regions and cities of the country the rate of financing per student is not the same for all regions and cities. This happens due to the two-level normative. First is a normative for each student, which is equal for all by type of school, and the second one is for each type of school. There are different numbers and types of schools in districts (see appendix.Table 2). For example, per capita expenditure in Kulob in 2009 was 260.69 somoni and in Vakhsh district was 330.13 somoni. This indicator increased in 2011 and respectively reached 334.93 and 422.37 somoni. In both areas over three years, financing per student has increased by 8%, but it is for 3% less of the average increase in financing per student in the country. However, as follows from the data of Chart 4 the share of financing per student in Kulob and Vakhsh in ratio to the republican level also has a positive growth and all this is due to increased per capita rate and increased financing of secondary education as a whole.

Chart 4. The share of spending per student in the schools of Kulob and Vakhsh in ratio to the national average (%)



With increasing funding for education on transition to per capita financing the effectiveness of usage of financial resources should be increased, which is reflected on the change of expenses structure in secondary education.

Table 4. Increased effectiveness in usage of the budget funds

Years	Number of districts transferred PCF	Share of salary in total budget (%)	Share of other expenses in total budget (%)
2007	12	92.2	7.8
2008	19	84	16
2009	43	72.1	27.9
2010	68	71	29

Source: Ismonov F. Khojaeva S. Achievements of the Republic of Tajikistan on transition to per capita financing. Dushanbe, 2010

Table 4 shows that after the transition to per capita financing the share of wages in the total budget were reduced and the share of other costs increased. For example, in 2007 the share of the overall budget of the wage bill was 92.2%, while the share of other costs 7.8%, in 2010 these figures had changed and were respectively 71% and 29%. The share of wage bill fell by almost 19%, while the share of other expenses increased by 21%. Such change is quite natural for the introduction of per capita financing and this is important evidence of the effectiveness of the financial mechanism of the reform of secondary schools. Sharp fluctuation of indicators of expenses structure of the school budget based on the fact that following introduction of per capita financing the classes were restructured (reducing low enrollment classes), which led to a reduction in teaching workload and demand for teachers. "With increased number of students in schools that have been transferred to PCF (as of 01/01/2010) to 4,936, the number of classes was reduced to 1,423. The maintenance of this number of classes costs 5,692,000 somoni to the state."[11] This, in its turn, allowed to reduce payroll and use the saved funds for other budget items, which share on transition to per capita financing was 6-8%. Saved financial resources were accumulated in other expenditure items, which economists call the school development fund and are allocated by the school principal. The increased development fund has amplified the school opportunities on acquisition of new teaching materials, technology, equipment, repair work, etc.

Table 5. Changing of expenses structure in school education in Vakhsh district

	1. Payroll	**2.1. Costs of goods, including communication charges**	**2.2. Utilities**	**2.3. Maintenance and repair**	**5. Acquisition of capital assets**
2009	95.98%	0.87%	1.38%	1.19%	0.59%
2010	69.09%	15.60%	2.59%	6.31%	6.40%
2011	74.87%	11.46%	3.06%	5.27%	5.34%

Source: Compiled by the author based on data Vakhsh education department

In Vakhsh district before transition to per capita financing (since 2009) the share of the wage bill reached to 95.98%, while the share of other expenses 4.02%. This means that most resources were directed to support the payroll and the school did not have the opportunity to invest in the development and expansion of technical and infrastructural capacity, which negatively affects the quality of educational services. As Table 5 shows in Vakhsh district the share of payroll in expenses structure has declined sharply and the share of other items of expenditure has increased in 2009-2010. In 2011 the share of payroll and utilities is increased (from 69.09% in 2010 to 74.87% in 2011), but expenses for maintenance and repairs, purchase of goods and communication fees and acquisition of capital assets have decreased. The share of other budget lines increased sharply after transition to per capita financing and according to one of the school principals of Vakhsh district "the effective implementation of per capita financing allowed to carry out the buildings repair with a good quality and less funds, purchase the necessary materials and teaching equipment and most importantly to reduce unnecessary spending."

A different situation is observed in schools Kulob in the recent years (see Table 6).

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[11] *Ismonov F. Khojaeva S. Achievements of the Republic of Tajikistan on transition to per capita financing. Dushanbe, 2010, 16 pp*

Table 6. Changing of expenses structure in school education in Kulob

	1. Payroll	2.1. Costs of goods, including communication charges	2.2. Utilities	2.3. Maintenance and repair	5. Acquisition of capital assets
2009	82.86%	5.11%	3.01%	6.85%	2.21%
2010	83.01%	6.89%	2.20%	6.25%	1.67%
2011	86.58%	4.40%	2.03%	5.39%	1.61%

Source: Compiled by the author based on data of Kulob education department

It should be noted that in the project target areas the increase of payroll is observed. The representatives of education departments of the targeted districts attribute this to the increasing number of students, number of classes, and the volume of teaching workloads. However, analyzing the extent to which increasing the number of students affects the share of payroll we observed that there is there is no relationship or pattern between these indicators.

Table 7. Occupancy of the newly created classes[12]

#	Name of indicator	2010	2011
	Vakhsh		
1	Changes in the number of students (ratio to the previous year, person)	674	289
2	Changes in the number of classes (ratio to the previous year, classes)	34	58
3 (3=1/2)	The ratio between changing the number of students and the number of classes (occupancy of the newly created classes)	19.82	4.98
	Kulob		
4	Changes in the number of students (ratio to the previous year, person)	926	-578
5	Changes in the number of classes (ratio to the previous year, classes)	15	7
6 (6=4/5)	The ratio between changing the number of students and the number of classes (occupancy of the newly created classes)	61.73	-82.57

Source: Calculated and compiled by the author based on date of districts education departments

According to Table 7, the number of students in Vakhsh district increases each year, however in Kulob over the last year has decreased by 578 students (in secondary schools, which have been transferred to per capita financing). Accordingly, the number of newly created classes in the Vakhsh district increases, but in Kulob despite the reduction of the number of students we

[12] *Occupancy of the newly created class is the ratio between the changes in the number of students and the number of classes. For example, in Vakhsh district the number of students has increased by 674 persons and 34 new classes were created in 2010. Occupancy of the newly created classes is defined as follows: 674/34 = 19.82 persons.*

observe creation of new classes. The most exemplary indicator of effectiveness is the occupancy of the newly created classes. This indicator was 19.82 students in 2010 and 4.98 students in 2011 in Vakhsh district. Logically this means that in 2010 the new classes have been created for 20 students and in 2011 for five students new classes were created, which contradicts to the principles of per capita financing.

In 2010 in order to place 926 students 15 newly classes with occupancy of 61.73 persons were formed and 7 classes were created in 2011 although the number of students reduced at 578 persons in Kulob. This trend is irregular and unjustified as it has no logical explanation. However, the project specialists and district education departments say that the increase in the number of classes and non-compliance of filling the newly created classes is not caused by poor planning but it is, above all, due to the diversity of conditions in secondary schools. In some schools class occupancy is 18-19 students and 30-35 persons in others. However, according to the regulation on the educational institutions in RT[13] the following normative for class occupancy are determined: 25 students per class in primary school (1-4), 30 students for grades 5-9 and 10-11. Due to shortage of human resources (subject teachers) and lack of classrooms the schools cannot provide the current normative of class occupancy.

In our view a deviation from the normative of average occupancy in the newly created classes is evidence of poor planning at the school level and poor coordination of the regional education departments. This also means that the school principals create new classes with low occupancy for unclear reasons and increasing the number of teaching rate. Here, perhaps, a corruption purpose or conscious planning from school principals is occurring. The reasons for increasing the number of classes or the average number of newly created classes as well as changes of the volume of teaching workloads is not analyzed by the district education departments and they cannot explain the reasons of increased pedagogical staffing in the light of reduction of the number of students.

All this suggests that there is a need to change the mechanism of payment of teachers, which must be tied to the volume of effort and quality of work and strengthening of mechanism for monitoring and analysis of the situation by district education departments.

3.2. Budget execution on education financing

The school principals, accountants, mentors and specialists of education departments of the project targeted areas noted on the interviews that the main problem in implementation of per capita financing is poor execution of the approved budget. The planned budget is not always fulfilled and often money for development many schools are receiving in the fourth quarter and they have no right to use the saved funds in the next year. According to the instruction on per capita financing each school must receive no less than 95% of the planned budget within the fiscal year. However, as our analysis shows, the education budget is not always executed on time. Specialists of district education departments attribute this to the delayed collection of revenues on the local budgets and their allocation according to priority.

Table 8. Budget execution of Kulob schools with per capita financing for 2007 to 2011 (%)

	2007	2008	2009		2011	Average

[13] *Approved by Regulation #626 of the government of RT, dated October 12, 1995.*

				2010		for 2007-2011
Total	96.68%	94.65%	96.17%	98.49%	94.73%	**96.14%**
Including;						
Utility costs	96.94%	96.03%	97.80%	99.59%	97.11%	**97.49%**
Utilities	75.65%	62.65%	100.59%	81.85%	82.92%	**80.73%**
Purchase of equipment of long-term utilization	96.39%	63.90%	81.63%	76.34%	72.88%	**78.23%**
Repair and maintenance of buildings and structures	98.86%	94.37%	105.57%	106.40%	103.33%	**101.70%**
Other expenses	93.73%	85.37%	71.64%	93.49%	67.13%	**82.27%**

Source: Compiled and calculated on basis of USAID/QLP database

As Table 8 shows, on average the execution of education budget in the period from 2007 to 2011 in Kulob was 96.14% and under-funding ranges on 5%. However, according to data in Table 8 financing of budget lines is not equal and line "repair and maintenance of buildings and structures" are sometimes funded more than other lines. Underfunding is observed in the budget lines "purchase of equipment of long-term utilization" and "utility costs." This is due to the fact that at first procurement of equipment of long-term utilization is done through government programs at the expenses of national budget through the Ministry of Education. Secondly, purchase of durable equipment requires more money and it also requires implementation of several financial procedures (tender, negotiation, etc.). According to many accountants, underfunding of the budget line "utilities" is happening due to the fact that many schools save funds through installing of meters and efficient usage, then relocating them to the line "repair and maintenance of buildings and structures," which indicates financial and management autonomy of school principals under per capita financing. A large proportion of execution falls to the line "payroll and social security," which indicates that the delay and underfunding of wages is practically nonexistent.

The same pattern exists in Vakhsh district, where the execution of education budget made up only 94.1% in 2011.

3.3. Changing of non-economic indicators of effectiveness of school financing and management

Introduction of per capita financing should lead to positive changes, not only in terms of improving the financial indicators of activities of the educational institutions, but also should improve the conditions and results of educational activities. These indicators include the number of schools, classes, student-teacher ratio, class occupancy, ratio of teaching workloads and the number of teachers. The above indicators are the most important parameters of educational policy that are relevant for planning and forecasting of development of the education system. It should be noted that economic factors are changing under the influence of the above-mentioned non-economic factors, therefore they are closely interrelated. According to educational theory, the lower the "number of students per teacher," the more expensive the cost of education per student, or decrease of average class occupancy leads to overspending on wages in the education system. Analysis of changes in non-economic factors can determine the effectiveness of the reforms and the study of relationship

between economic and non-economic factors makes it possible to evaluate the introduction of per capita financing from a financial point of view.

For that purpose we try to analyze the non-economic factors in the country and in the project target areas.

1. School network and the number of classes. Optimization of the network of educational institutions and classes is a prerequisite and a consequence of introduction of per capita financing in educational institutions of the Republic of Tajikistan. At the first stage of implementation of per capita financing the reorganization of schools with a small number of students was made by merging them to basic and secondary schools. In Tajikistan, where many schools are located far from each other, and each year the number of participants increases, the liquidation of educational institutions is often unacceptable and inappropriate. Therefore, type of the educational institutions has changed in view of the feasibility of realization of educational programs of a certain level (basic school transferred to secondary, primary to basic or branches). For example, in Vakhsh district the number of schools was reduced from 82 to 46 with many primary schools transferred into branches of nearby schools.

Table 9. Reduction of classes after introduction of per capita financing

Year	Number of districts transferred to PCF	Number of classes at the time of the transition	Number of classes offered for reduction	Number of reduced classes	Share of reduced classes (%)
2007	13	28,262	1,598	1,620	5.73
2008	24	29,143	1,583	1,656	5.68
2009	25	31,467	1,546	1,317	4.19
2007-2009	62	88,872	4,727	3,276	15.6

Source: Compiled and calculated by the author based on materials of the Regional Conference "Achievements of the Republic of Tajikistan on introduction of per capita financing in secondary schools," Dushanbe 2011

The analysis showed that on transition of educational institutions per capita financing the share of wages in total expenditure budget is large due to high number of class-set with the class occupancy not meeting the established normative (25 in primary classes and 30 students in secondary). Therefore, first of all the reduction of classes began in order to increase class occupancy. From 2007 to 2009, according to the Ministry of Education, in the areas transferred to per capita financing each year has been reduced up 5.7% of the classes. As Table 9 shows 1,620 classes were reduced in 2007, 1,656 in 2008 and 1,317 classes in 2009.

If the state spends on average 4,000 somoni per class in a year, then by reducing the 4,593 classes from 2007 to 2009 it saved the budget funds in the amount of 18,372 million somoni.

2. Number of students per teacher (ratio student/teacher). The indicator "number of students per teacher" is the most important indicator of planning of development of the education system. Unfortunately, the Ministry of Education did not establish a normative value for this indicator, therefore in this analysis the optimal value taken is the average ratio for Tajikistan. In order to set the normative value of this indicator the Ministry of Education

in cooperation with Ministry of Finance should carry out an analysis in order to identify the extent to which changing of this parameter affects the budget indicators and allows for saving financial resources of the state.

Table 10. Dynamics of ratio of student/teacher on republican schools from 2009 to 2011

	2009	2010	2011
Region Name	**Ratio student/teacher**	**Ratio student/teacher**	**Ratio student/teacher**
GBAO	6.76	6.48	7.70
Dushanbe	25.48	26.08	25.52
DDS	18.51	18.01	19.23
Sughd	13.56	14.43	14.58
Khatlon	20.49	20.94	20.85
Average	**17.13**	**17.62**	**17.99**

Source: Calculated and compiled by the author based on data of MoE RT

Table 10 indicates that in 2011 there were 17.99 students per teacher, which is slightly more than in 2009. The highest value of this indicator is observed in Dushanbe (25.52) and the lowest in GBAO (7.70).

Indicators of Sughd region and GBAO are low compared to average for the country. In Dushanbe this indicator is much higher. In general, in all regions and at national level as a whole there is a small increase of the value of the indicator, which is a result of introduction of per capita financing and optimal planning of the educational process and usage of resources. However, it is difficult to say as far it necessary to improve or ensure the growth of this indicator, but we think it is true that "the lower ratio between teacher and students can improve the quality of education, but the lower ratio the more expensive is a student education. It is important to set a balance as too low ratio increases the cost per student and too high ratio affects the quality of education."[14]

The high value of the above indicator indicates the number of students per teacher and if this ratio is high in comparison to the statistical average (in our analysis nationwide) it indicates the outsized class occupancy.

3. Class occupancy. The Ministry of Education has established the average class occupancy in the range of 25 students for primary classes and 30 students for secondary classes (5-11). According to the Ministry, the average class occupancy after transition to per capita financing has increased and if in 2005 it was 19, in 2010 it reached 25 students (see Chart 7). "Despite the fact that 3,611 schools have been transferred to normative financing in 2010, which is more than 1,241 schools than in 2009, the average class occupancy increased nationally to one point."[15]

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[14] *Uzbekova J. and others. Increased effectiveness of school management and financing. The results of first year of reforming of school education in Chui oblast of Kyrgyzstan. ВБ.: 2010, 14 pp.*

[15] *Ismonov F., Khojaeva S. Achievements of the Republic of Tajikistan on transition of school to per capita financing.Dushanbe 2010, 36 pp.*

Table 11. Dynamics of non-economic factors in the schools of Kulob and Vakhsh district

Vakhsh district

Indicator	2009-2010	2010-2011	2011-2012
Number of classes	1,499	1,533	1,591
Number of students	34,508	35,182	35,471
Number of teachers	1,506	1,430	1,502
Number of teaching rates[16]	1,953	1,905	2,013
Changing the number of classes in ratio to the previous year (%)	--	102.27%	103.78%
Changing the number of students in ratio to the previous year (%)	--	101.95%	100.82%
Changing the number of teachers in ratio to the previous year (%)	--	94.95%	105.03%
Changing the number of teaching rates in ratio to the previous year (%)	--	97.54%	105.67%
Class occupancy	23.0	22.9	22.3
Student/Teacher	22.9	24.6	23.6
Teaching Rates/ Teacher	1.3	1.3	1.3

Kulob

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Number of classes	1,623	1,656	1,686	1,711	1,722	1,737
Number of students	41,324	43,191	41,895	42,024	42,950	42,372
Number of teachers	2,297	2,305	2,144	2,336	2,351	2,358
Number of teaching rates	2,819	2,360	2,427	2,455	2,462	2,482
Changing the number of classes in ratio to the previous year (%)		102.03%	101.81%	101.48%	100.64%	100.87%
Changing the number of students in ratio to the previous year (%)		104.52%	97.00%	100.31%	102.20%	98.65%
Changing the number of teachers in ratio to the previous year (%)		100.35%	93.02%	108.96%	100.64%	100.30%
Changing the number of teaching rates in ratio to the previous year (%)		83.72%	102.84%	101,15%	100.29%	100.81%
Class occupancy	25.5	26.1	24.8	24,6	24.9	24.4
Student/Teacher	18.0	18.7	19.5	18,0	18.3	18.0
Teaching Rates/ Teacher	1.2	1.0	1.1	1,1	1.0	1.1

[16] *Teaching rate or Pedagogical rate is a rate corresponding to normative of teaching workload.*

Source: Compiled and calculated by the author based on data of education departments of Kulob and Vakhsh

The schools of the project targeted districts (Kulob and Vakhsh) have class occupancy less than the national level, which changes very little over the years. In 2011 if class occupancy in Kulob was 24.4 students, in Vakhsh district it was less by two students equaling 22.3 students. Low class occupancy in the above areas according to the specialists of education departments is the result of remoteness of villages and a smaller number of students of the basic schools and branches. Some schools have low occupancy because of a small capacity of classrooms and teaching language as it is impossible to combine classes with Uzbek and Tajik or in Uzbek schools because of shortage of students.

4. The effective use of human resources. Analysis of indicators of use of human resources shows that transition to per capita financing does not improve the condition of school human resources. The transition to per capita financing did not improve the provision of school human resources as well as schools cannot alone solve the problem of teachers' turnover. Schools transferred to per capita financing are not able to handle personnel issues and improve the system of motivation of teachers. Many schools alone cannot raise the wages of teachers and even reward their employees for the best results. The process of remuneration of teachers takes time and a lot of documents. In most cases, the district finance departments do not allow school principals to motivate the teachers and even saved money will not be added (not transferred to the next year) to the operating budget of a school. It should be noted that after the transition to per capita financing the share of the wage bill on the total school expenses has decreased and this is the only change that occurred in payroll system of secondary schools. All this requires reforming the system of remuneration of education specialists under per capita financing mechanism and its work oriented result.

According to Table 11 the number of students, teachers and pedagogical rates are increasing each year. In Vakhsh and Kulob, despite increased ratios and the number of teachers, teaching rate per teacher is not changing significantly. Despite the fact that the law allows all teachers to work at 1.5 rate, in Kulob it was 1.1 rate per teacher in 2011 and 1.3 rate in Vakhsh district. Such deviation from the norm incurs due to the fact that more than 42% of teachers in the country are working at rates less than 1 according to the Ministry of Education (see Table 12).

Table 12. Information about teaching rates in educational institutions of RT in 2011 (%)

	Teachers working at more than 1 rate, %	**Teachers working at 1 rate, %**	**Teachers working at less than 1 rate, %**
Total in the country	47.72%	9.66%	42.62%
Khatlon	48.8%	17.4%	33.8%
Vakhsh	59.5%	6.3%	34.2%
Kulob	48.8%	17.4%	33.8%

Source: Compiled and calculated by the author based on data of MoE

In Vakhsh and Kulob most teachers work at more than one rate, but 345 teachers of the named areas are working at less than 1 rate. It should be noted that the increase in the number of teachers working at 1 rate or less increases the risk of leaving the work as salary is very

low. According to the district education departments (OSh 1) 164 teachers of Vakhsh and 64 teachers of Kulob for various reasons have left the job in 2010-2011. In 2011, according to the aforementioned source, there was shortage in 311 teachers in Vakhsh (137 classes in Tajik and 174 Uzbek classes). This indicator in Kulob made up 189 teachers.

Table 13. Dynamics of economic and non-economic indicators of effectiveness of implementation of per capita financing in Kulob and Vakhsh

	2009	2010	2011
Kulob			
Student/teacher	18	18,3	18
Class occupancy	24.6	24.9	24.4
Expenses per student	260.69	289.30	334.93
Wage fund per student	216.00	240.14	289.98
Vakhsh			
Student/teacher	22.9	24.6	23.6
Class occupancy	23	22.9	22.3
Expenses per student	330.13	358.59	422.37
Wage fund per student	189.64	236.68	259.88

Source: Calculated and compiled by the author based on data of district education departments

As we noted earlier the ratio of class occupancy and the number of students per teacher are important parameters of education policy and according to the theory of education economics the growth of these indicators should decrease the cost per student. The state raises normative of class occupancy in order to reduce the number of teaching rates and payroll size. With the growth of rate student/teacher the fewer teachers are needed and correspondingly smaller payroll. Given this, the growth of rate class occupancy and the number of students per teacher should lead to reduction of cost per pupil. However, as it is shown in Table 13, there is no relationship between the parameters of educational policy and economic indicators of effectiveness of introducing of per capita financing in the project target areas. Economic indicators (expenditure per student and wage fund per student) tend to be increased with increasing class occupancy parameters and the number of student per teacher. The latter increase insignificantly, but the economic indicators are increased significantly. Perhaps, it depends primarily on the fact that financing normative and the education budget as a whole are increasing annually. In spite of that, the issue requires careful analysis at the level of education institutions.

According to Table 13, the expenses per student in Vakhsh district is higher than in Kulob (422.37 somoni in Vakhsh on 2011, 334.93 somoni in Kulob) and wage fund per student in Kulob more than in Vakhsh district. This, in our opinion, is linked to the structure (level of education and qualifications) of the teachers. The low value of the above-mentioned indicator in Vakhsh district is due to the fact that 10% of teachers have a secondary education and 51.1% higher education. This indicator in Kulob was respectively 0.1% and 80.8% in 2011.

CONCLUSIONS

1. The practice of introducing of per capita financing in Tajikistan allowed to learn and clearly outline the scope of the main challenges and issues that must be

considered for improving the mechanism of per capita financing and further reforming of the financial system as a whole.

2. Experience on transition to per capita financing of schools shows that after introduction of per capita financing a certain increase of efficiency in usage of resources of educational institutions. Our analysis has shown that there is financial and management autonomy of school administration and more responsibility on development and usage of financial resources. Over the years of working under normative financing use of financial resources has been improved and many schools received the opportunity to increase expenses for development, to acquire the necessary materials, school supplies as well as independently make repair and restoration work. Planning of financial resources is being done directly by the school administration, which led to the fact that planning of training hours, the need for teachers and class formation are improved. In secondary schools the public bodies of co-management, such as PTA, were established. Many of them are very active. In those schools where the public bodies of co-management are active it is possible to attract financial resources from extra budget funds and carry out a public control to ensure transparency in usage of the educational institutions budget. PTAs not only work to collect and attract parent contributions, but also help the school in various areas such as attraction of children to learning (better coverage), maintenance of school buildings and facilities, stimulation of the best students for their achievements, assistance to the children from low-income families as well as improving attendance.
3. Despite the positive changes it should be noted that there are many challenges those involved in the reform process (school administration, education departments, treasury, etc.) are facing. First of all, there are issues associated with underfunding, untimely and poor budget financing of educational institutions and education system as a whole. Financial authorities (district finance department and treasury) sometimes interfere with the formation and usage of resources and artificially create a situation which then leads to underfunding or untimely funding of educational institutions. Therefore, despite the fact that the budget of many schools is not executed by 95% in the budget of education system at districts level saved funds are accumulated, which, unfortunately, are not transferred to the next year budget of educational institutions. This leads to the fact that school principals are not interested in effective usage and budget savings and are not able to motivate their employees through additional fees, etc. A similar situation exists in formation and usage of extra budget funds, which are accumulated in a special account and then used by schools in accordance with the law.
4. Per capita financing mechanism at this stage does not improve the status of human resources of educational institutions because the mechanism of compensation is not related to the work result and normative of per capita financing. At the present level of financial and management autonomy, principals are not able to invest financial resources in building of human capacity and motivating their best teachers.
5. In all regions of the country, reduction of classes and increase of class occupancy becomes difficult due to other factors such as distance to other schools, terrain, lack of adequate classrooms, etc. At the same time, in some schools, principals often do not carry out the restructuring of classes in order to reserve the additional teaching rates for some teachers, which increase the expenses per student.
6. The project developed a computerized automated expenditure tracking system for monitoring of implementation of per capita financing. Unfortunately, specialists of

education departments do not realize the benefits of the system and cannot use it as a tool for analysis and decision making.

7. According to the National Strategy for Education Development up to 2020, it is planned to improve the mechanism of per capita financing of educational institutions. The Ministry of Education is planning to introduce a reform of financing and management at all level of education system.

RECOMMENDATIONS

1. It will be very useful and effective to organize a system discussion of implementation of per capita financing at the national level as the practice shows that it can be an effective tool to improve the monitoring of the financial mechanism of educational institutions. An annual conference on the results of per capita financing should be organized. Also a statistical report on the financing of educational institutions of the Republic of Tajikistan has to be developed and published.
2. There is a need to strengthen the capacity and potential of PTAs through provision of technical assistance for their activation. Provision of technical assistance and consultations to the school public associations on attraction and usage of extra budgetary funds as well as participation in school management and ensuring of transparency of budget funds would be helpful.
3. In order to ensure timely financing of the "non-protected" budget lines (all lines except salary, taxes, and utilities) of educational institutions it is necessary to introduce the normative financing of these lines. For example, set a certain normative, which requires the financial authorities to fund "non-protected" budget lines of educational institutions in the amount of 25% in the first quarter. This approach allows schools to receive a certain amount in a timely manner for operating costs and does not lead to delayed financing and underfunding. Additionally, it is necessary to allow schools to use the savings during the financial year and the next fiscal year and thus motivate the school authorities for efficient use and saving of financial resources. This requires an adjustment to the financial legislation as well as instruction on per capita financing.
4. There is a need to reform the system of remuneration and allow administration together with PTAs to incentivize employees based on the effectiveness and quality of their work.
5. The district education departments must constantly analyze the cost per student and identify the factors of change in each school and on the basis of this indicator to monitor the proper planning and preparation of the school tariffing. This will reduce the number of teachers working at one rate and reduce the turnover of teachers during the school year.
6. Introduce compulsory monitoring of per capita financing and improve the state of the financial statistics at the national level through the introduction of a special report on formation, distribution and usage of financial resources. It is also necessary to install a computerized model for planning and monitoring of education development at districts education departments.
7. Carry out a comprehensive analysis of the current situation of implementation of normative financing in educational institutions of the country and on the basis of its results, improve policy of the Ministry of Education on per capita financing.
8. Encourage schools operating under new financing and management model to further increase efficiency based on the above analysis, including:
   - Considering reducing the number of teachers and increasing the student/teacher ratio;
   - Reducing the number of classes and increasing class size;
   - Analyzing and potentially reducing the number of non-teaching personnel;
   - Considering reductions in curriculum hours;

- Increasing use of physical capacity/space within the school and/or reducing unnecessary space if possible; and
- Identifying mechanisms to reduce utility costs and improve school energy efficiency (e.g., meters, repairs/renovations, insulation, etc.).

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APPENDIX

Table 1. State budget expenditures on education

Years	Expenses from state budget for education, somoni	Percentage in ratio to:	
		GDP	State budget expenditures
1991[17]	1,189.7	8.9	23.6
1992	6,975.6	10.8	18.6
1993	56,738.7	8	16.8
1994	134,771.3	7.3	13.8
1995	1,524.1	2.2	16.1
1996	6,639.5	2.1	11.5
1997	13,105.1	2.5	12.5
1998	22,373.9	2.2	12.5
1999	27,929.2	2.1	11.8
2000	41,606.6	2.3	15.9
2001	60,931.1	2.4	16.9
2002	86,869	2.6	16
2003	112,082.1	2.4	14.5
2004	164,252	2.7	15.1
2005	253,105.5	3.5	18
2006	317,723.8	3.4	17.8
2007	437,048.3	3.4	12.5
2008	612,632	3.5	12.7
2009	845,419.3	4.9	17.8
2010[18]	1,145,260.1	4.6	17.8
2011	1,363,800	4.6	18.0

7. *Source: Ismonov F., Development of education financing in the times of independence. Dushanbe 2011, 23 pp.*

[17] *1991-1994 million Russian rubles*

[18] *2010- preliminary information, 2011 plan*

Table 2. Costing parameters of per capita formula

	2008	2009	2010	2011	2012
Secondary school (grades 1-11)					
Per student, somoni	153	222	244	268	327
In comparison to 2008, %	100	**45.10**	**59.48**	**75.16**	**113.73**
Per school, somoni	29,324	41,054	45,159	49,675	60,604
In comparison to 2008, %	100	40.00	54.00	69.40	106.67
Basic school (grades 1-9)					
Per student, somoni	190	276	304	334	407
In comparison to 2008, %	100	45.26	60.00	75.79	114.21
Per school, somoni	11807	16,530	18,183	20,001	24,401
In comparison to 2008, %	100	40.00	54.00	69.40	106.67
Primary school (grades 1-4)					
Per student, somoni	238	345	380	418	510
In comparison to 2008, %	100	44.96	59.66	75.63	114.29
Per school, somoni	4251	5,951	6,546	7,201	8,785
In comparison to 2008, %	100	39.99	53.99	69.40	106.66

Source: USAID/QLP data

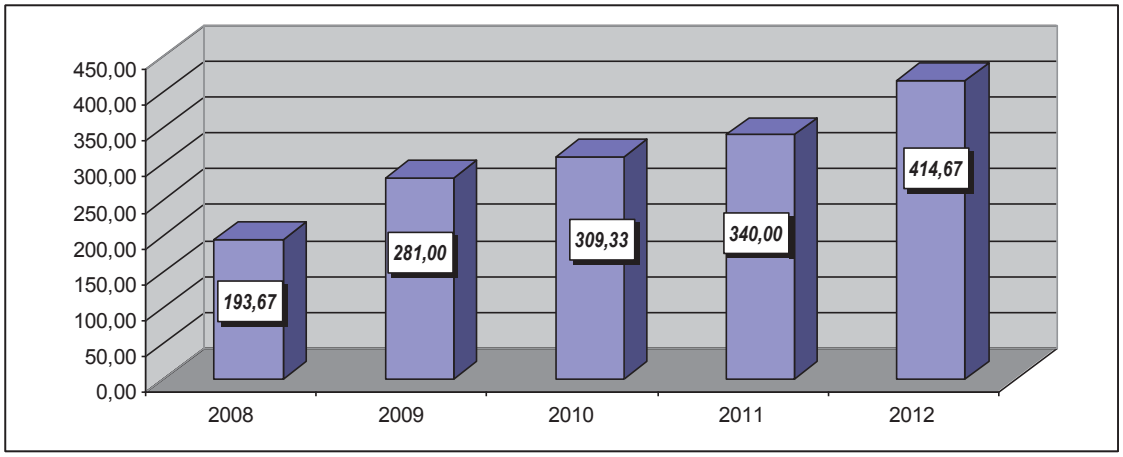
Table 3. Expenditure per student

Indicator Title	2009	2010	2011
Expenses per student, somoni			
Kulob	260.69	289.30	334.93
Vakhsh	330.13	358.59	422.37
Tajikistan	454	446.4	507.22
Expenses per student in ratio to national indicators, %			
Kulob	57.42%	64.81%	66.03%

Vakhsh	72.72%	80.33%	83.27%

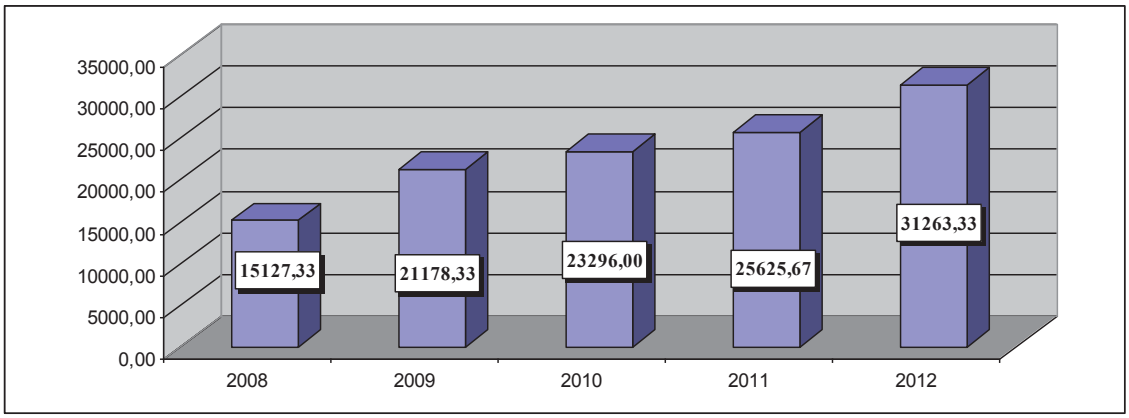
Source: Calculated and compiled by the author based on data of USAID/QLP

Chart 1. The average normative per student in the republic



Source: Calculated and compiled by the author based on data of USAID/QLP

Chart 2. The average normative per school in the republic



Source: Calculated and compiled by the author based on data of USAID/QLP

Chart 3. Dynamics of expenses of state budget per student, somoni

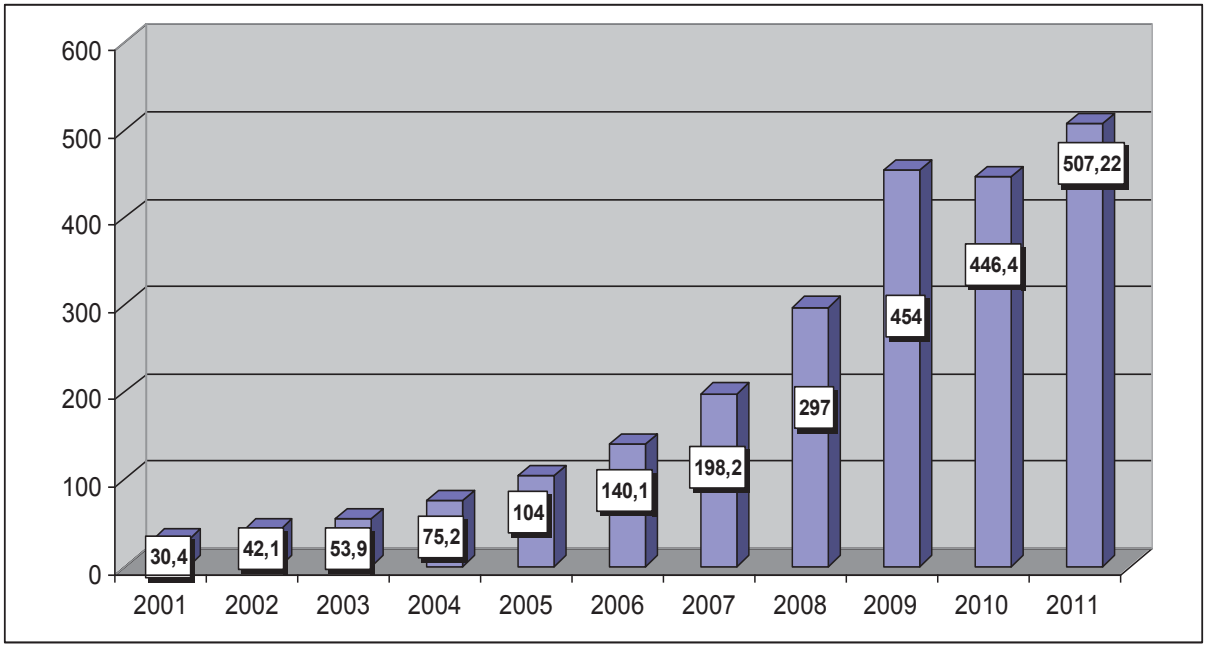
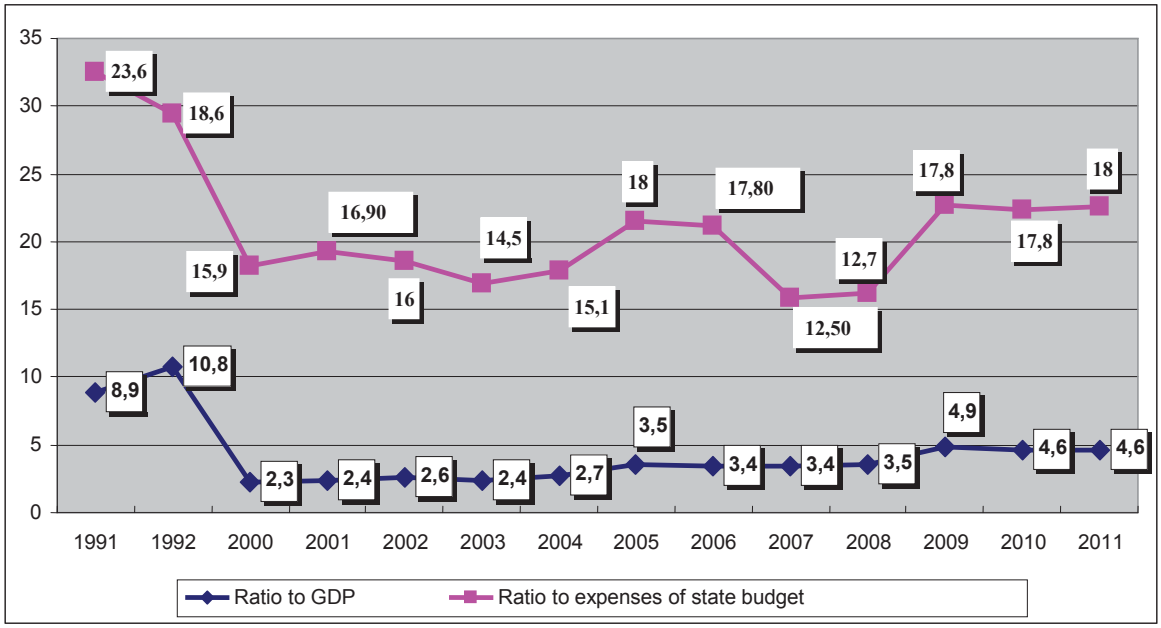
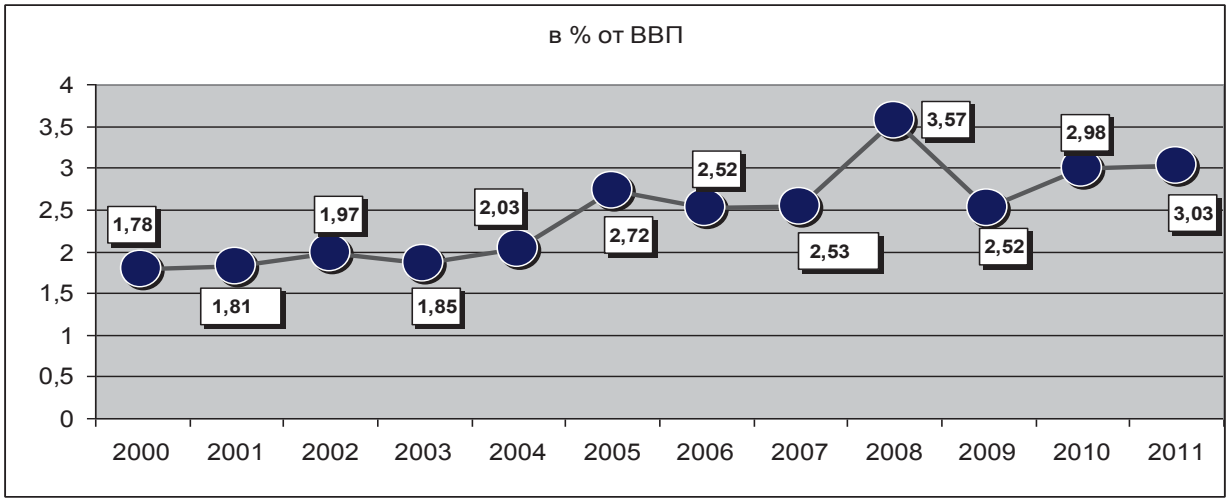


Chart 4. Financing of education in ratio to GDP and expenditures of the state budget



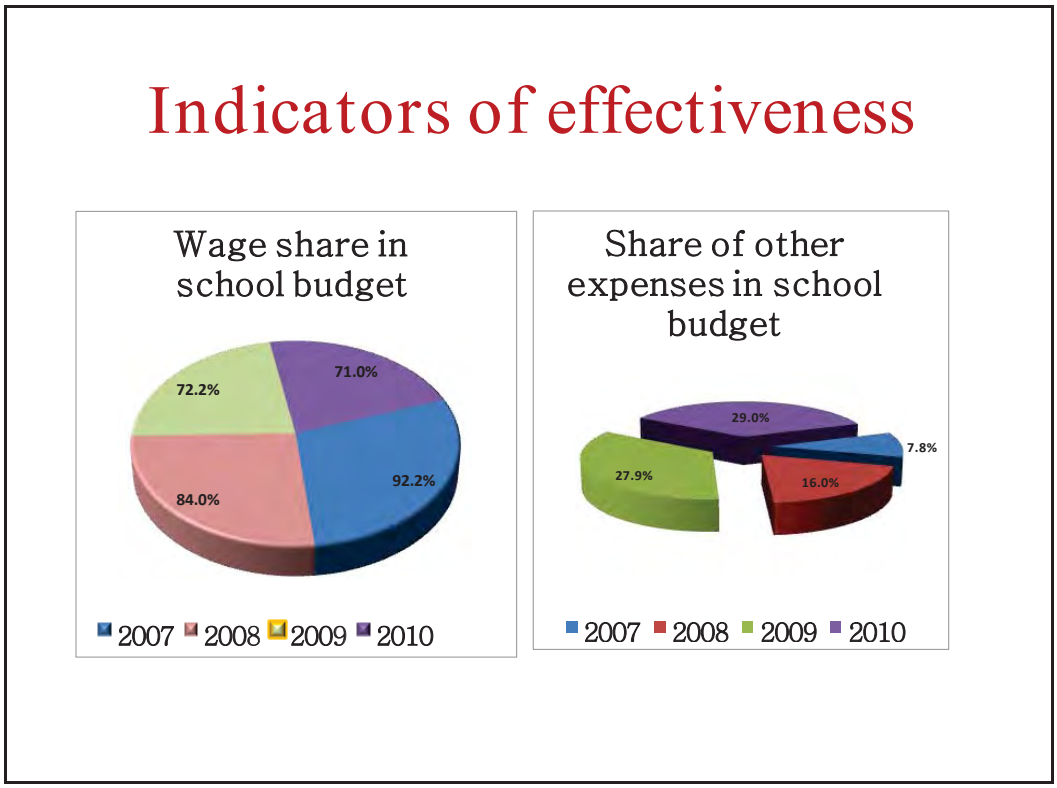
Source: Compiled by the author based of the following sources: 1) A national report on the development of education of the Republic of Tajikistan. Dushanbe, 2011., 2) Development of education financing in the times of independence. Dushanbe 2011,

Chart 5. Financing of secondary education in ratio to GDP



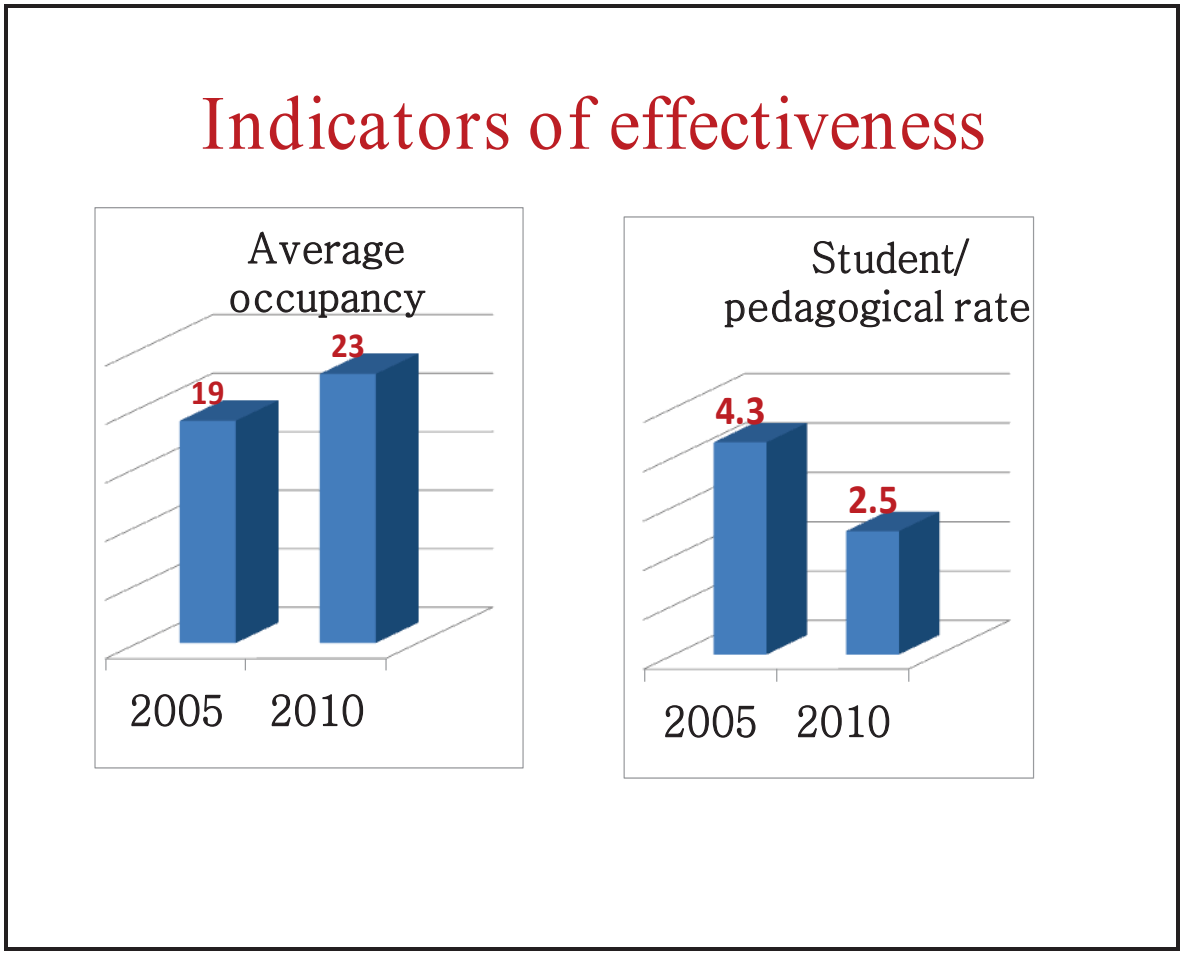
Source: Compiled by the author on the National Report on the development of education of the Republic of Tajikistan. Dushanbe, 2011.

Chart 6. Dynamics of economic indicators



Source: Materials of the Regional Conference "Achievements of the Republic of Tajikistan on the introduction of per capita financing in secondary schools." Dushanbe 2011.

Chart 7. Dynamics of non-economic indicators of effectiveness of implementation of per capita financing



Source: Materials of the Regional Conference "Achievements of the Republic of Tajikistan on the introduction of per capita financing in secondary schools." Dushanbe 2011.

Table 4. Kulob education budget in the period 2007 to 2011 (somoni)

	2007		2008		2009		2010		2011	
Total	**6124068**	**5920945**	**8045935**	**7615128**	**11392160**	**10955389**	**12615825**	**12425506**	**14981839**	**14191845**
Including	Approved budget	Budget execution	Approved budget	Budget execution	Approved budget	Budget execution	Approved budget	Budget execution	Approved budget	Budget execution
Payroll and social security	5716716	5541546	7239246	6952179	9281282	9077199	10356990	10314053	12651986	12286947
Utility expenses	61913	46839	108303	67849	328001	329948	333955	273346	348072	288633
Purchase of long-term used equipment	34897	33636	122674	78388	297188	242600	324998	248112	313357	228364
Repair and maintenance of buildings and structures	152958	151216	280321	264533	711155	750745	730438	777152	740139	764751
Other expenses	157584	147708	295391	252179	774534	554897	869444	812843	928285	623150

Table 5. Dynamics of the number of students and teachers

	2009			2010			2011		
Region Name	**Number of students**	**Number of teacher**	**Ratio student/ teacher**	**Number of students**	**Number of teacher**	**Ratio student/ teacher**	**Number of students**	**Number of teacher**	**Ratio student/ teacher**
GBAO	43,679	6,462	6.76	35,334	5,454	6.48	40,809	5,298	7.70
Dushanbe	166,903	6,551	25.48	167,569	6,424	26.08	168,428	6,601	25.52
RRP	378,290	20,436	18.51	356,850	19,812	18.01	381,840	19,853	19.23
Sughd	461,772	34,042	13.56	463,052	32,097	14.43	463,311	31,781	14.58
Khatlon	643,601	31,409	20.49	638,039	30,466	20.94	647,925	31,071	20.85
Total	**1,694,245**	**98,900**	**17.13**	**1,660,844**	**94,253**	**17.62**	**1,702,313**	**94,604**	**17.99**