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Education Financial Planning in Asia

Implementing Medium-Term Expenditure Frameworks

Republic of Korea

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## **Abbreviations**

GDP Gross Domestic Product

KDI Korean Development Institute

KEDI Korean Educational Development Institute

LEOs Local Education Offices

MEST Ministry of Education, Science and Technology

MOPB Ministry of Planning and Budget
MOSF Ministry of Strategy and Finance

MTEF Medium-Term Expenditure Framework

MTFF Medium-Term Fiscal Framework

OECD Organisation for Economic Co-operation and Development

PISA Programme for International Student Assessment

UNESCO United Nations Educational, Scientific and Cultural Organization

### **Foreword**

Education Financial Planning in Asia: Implementing Medium-Term Expenditure Frameworks—Republic of Korea is part of a series of in-depth studies on education financial planning in Asia, commissioned by the UNESCO Asia and Pacific Regional Bureau for Education - UNESCO Bangkok in 2008. The studies initially covered five countries, including Mongolia, Nepal, the Republic of Korea, Thailand and Viet Nam. Additional studies are now underway in Cambodia, Indonesia, Singapore and Tajikistan.

Medium-term expenditure frameworks (MTEFs) have been used in Organisation for Economic Cooperation and Development (OECD) countries for a while, but their history of use in developing countries is more recent, having started in the late 1990s. Over the past decade, however, donor support has provided for MTEFs aimed at strengthening the link between policy, planning and budgeting in many developing countries. Some of the best well-known and studied experiences in introducing and using MTEFs come from African countries. In Asia, a number of countries have introduced or are planning to introduce MTEFs, but no studies had been conducted nor any attempts made to document the experiences that countries have had in using MTEFs until this research.

Thus, the country case studies commissioned by UNESCO Bangkok are an attempt to address this knowledge gap. They look at Asian experiences with MTEFs, and thereby contribute to understanding the diverse practical aspects of introducing MTEFs, in general, and for the education sector, in particular.

The case studies were written as part of UNESCO Bangkok's clearinghouse project on education financing for implementation of Education for All (EFA) programming in Asia and Pacific countries. The clearinghouse has been developed as an e-resource portal on the UNESCO Bangkok website. Through this portal, UNESCO shares the organisation's long-standing experience and expertise in working with national and international partners on education policy analysis and planning. The portal also features more recent on-going work about education financing and the MTEF.

The portal has been designed for easy access by professionals who work on education planning and finance. Included in the portal is a range of practice-oriented information concerning modern planning techniques and medium-term planning and expenditure frameworks in individual country contexts. The site also contains training materials and tools, briefing notes on technical topics, updates on research and a glossary.

It is hoped that this reservoir of resources will provide Asia-Pacific countries with strengthened knowledge to use MTEF and, thereby, to contribute to effective implementation of their planned education reforms.

Gwang-jo Kim

Mang To kim

Director

UNESCO Bangkok

## **Acknowledgement**

This publication forms part of a series studying the application of the medium-term expenditure framework in financial planning in the education sector in Asia. The studies were initiated and their implementation co-ordinated by the Education Policy and Reform (EPR) Unit at UNESCO Bangkok. The unit was able to draw on a wide range of local and international expertise available at research institutes, universities and ministries in the participating countries.

The study in the Republic of Korea was written by Dr. Myung-Suk Woo, Director of the Human Resources for Science and Technology Division, Ministry of Education, Science and Technology (MEST). The study has particularly benefited from the knowledge of the many experts in the fields of education and economics who have contributed to economic plans since the 1960s. The most recent data and information contained in this report has been collected thanks to the collaboration of the Fiscal Planning Division at the MEST.

The regional project receives a generous financial contribution from the Japanese Government.

## **Executive Summary**

Since development plans were introduced during the early 1960s, the Republic of Korea has made significant progress in its public education system, in terms of both access and quality. School attendance rates achieved in 2007 reached 99 percent at the primary level, 96 percent at the middle-school level and 91 percent at the high school level. Two sub-sectors lagged behind, with the pre-primary level at 36 percent, and higher education at 69 percent. Nonetheless, academic performance was excellent, with Korean students ranking globally second in reading, third in math, and fourth in science<sup>1</sup>.

The first plan to set out compulsory elements for the education sector was contained within the five-year Economic Development Plan (1962–1966). In total, seven education sector plans were incorporated in economic and social development plans between 1962 and 1996. Education reform initiatives from 1995 to 1998, along with the National Human Resource Development Plans for 2001–2005 and 2006–2010, made further contributions to progress in the education sector. At the same time, they led the government to focus on three specific areas: increasing opportunities for children to attend pre-primary education; dealing with students who drop out of middle and high schools; and further improving the quality of education.

In 2003, the Ministry of Planning and Budget, which preceded the current Ministry of Strategy and Finance (MOSF), introduced a new financial operation system with top-down and performance-based budgeting. The medium-term fiscal framework (MTFF) brings medium-term and long-term perspectives to economic planning in order to allocate national resources strategically and maintain financial soundness. The first MTFF (2004–2008) was revised annually to reflect changing economic and social conditions.

The MOSF uses the MTFF to set a total budget ceiling for government expenditure, as well as ceilings for each ministry. The medium-term expenditure framework (MTEF) allows ministries to prioritize programmes and projects and formulate budgets for their respective sectors, within ceilings established by the MOSF. In this way, the annual budget is linked to the top-down budgeting of the MTFF, as well as to the bottom-up process of MTEFs for different sectors. In the education sector, the Ministry of Education, Science and Technology (MEST) is responsible for preparing an annual sectoral budget, within the sector ceiling and sub-sector ceilings set by the MOSF.

The education sector MTEF in the Republic of Korea is a five-year plan, formulated within the MTFF. It is programme-based, but budget figures are shown as aggregates of the programmes of sub-sectors, such as primary and secondary education. The MOSF collaborates with the Korean Development Institute (KDI) in preparing the MTFF and sector MTEFs. In the case of the education sector, help comes from the MEST and educators. The MTEF for the education sector presents total spending, policies and programmes over a five-year period that includes the previous and current years, as well as the next three years. The MEST formulates its budget request annually, and submits it to the MOSF and the National Assembly.

Priorities of the 2007–2011 MTEF for the education sector respond to the need for action in specific areas, including improving primary and secondary education through support for education welfare and funding after-school programmes and vouchers for students from low-income families. There is also a focus on increasing scholarships and interest-free loans to students from low-income families, so that they can attend institutions of higher education.

<sup>1</sup> As judged by the OECD Programme for International Student Assessment (PISA).

The process of formulating the MTEF for education raises several issues for future consideration. First, more involvement is needed by experts in education during discussions and formulation of the MTEF sector ceiling. At present, the MOSF working group is composed mainly of economists and financial experts. It may be preferable to have the MEST and/or the Korean Educational Development Institute (KEDI) lead the work of developing the MTEF for the education sector. In addition, the four sub-sector ceilings now set by the MOSF (primary and secondary education; higher education; life-long and vocational education; and administration) could devolve to the MEST, allowing the Ministry more autonomy within the total education ceiling. At present, the MEST is limited in its capacity to allocate resources based on strategic educational priorities across and within sub-sectors.

## I. Education System

The Ministry of Education, Science, and Technology<sup>2</sup> (MEST) and local education offices (LEOs) are responsible for the administration of the education sector in Korea. The Ministry is responsible for planning, formulation, implementation and co-ordination of national educational policies for all levels, from pre-school to higher education and life-long education, as well as science and technology, and provides administrative and financial support to 16 LEOs.

Since the enactment of the Local Autonomy Act in 1991, LEOs have had autonomy over budget planning, personnel management, and major administrative decisions in pre-school, primary, and secondary education. While the MEST plays a limited role in these sub-sectors, it is responsible for developing national curriculum and textbooks in order to maintain the quality of education. The MEST ensures equity in educational opportunities across the LEOs through distribution of funding to LEOs (MEST, 2008b), and local governments may also support the LEOs and schools with special grants. In addition, there are boards of education and education superintendents at higher-level local governments (metropolitan cities and provinces), and regional education offices at lower-level local governments (cities, counties and districts) (MEST, 2008b).

Korea has a single-track school ladder that requires six years in primary school, three years in middle school, three years in high school, and two to four years in college or university. Higher educational institutions include graduate schools, four-year colleges and universities, and two- or three-year junior colleges. The existing education system is based on the Basic Education Act, the Primary and Secondary Education Act, and the Higher Education Act of 1998 (MEST, 2008b).

For pre-primary, primary and secondary education, the following types of schools have been established: kindergartens, primary schools, civic schools, middle schools, civic high schools, high schools, trade high schools, special schools, and miscellaneous schools (MEST, 2008b).

For higher education, the following types of schools have been established: universities, industrial universities, teachers colleges, junior colleges, air and correspondence universities, technical colleges, cyber-colleges and universities, and miscellaneous schools (MEST, 2008b).

#### K-12 Education<sup>3</sup>

Compulsory schooling in Korea is provided at primary and middle schools for nine years, with no fees for tuition and textbooks. Lunches, materials for classroom use, transportation, and field trips are to be paid by students and parents. Primary and secondary schools have their own governing boards, which consist of parents, teachers and local residents. They are funded by the local education offices. Most private secondary schools also receive funds from LEOs. At the secondary school level, some high schools offer vocational training and technical education.

<sup>2</sup> The Ministry of Education evolved into the Ministry of Education and Human Resource Development in 2001, and the Ministry of Education, Science, and Technology in 2008.

<sup>3</sup> K-12 education covers pre-pirmary, primary, and secondary education.

Pre-primary education is not compulsory in Korea, and as a result, only 32 percent<sup>4</sup> of children aged 3 to 5 attended kindergartens in 2005 (Ministry of Education and Human Resources Development, 2007b). To provide opportunities for children from low-income families, the government has financed free education for five-year-old children from low-income families since 2003. Assistance with kindergarten tuition has been provided to children from low-income families since 1999.

#### **Higher Education**

Universities are categorized into national, private, and public institutions according to their founders and funding sources. All universities have autonomous governing bodies. The MEST has established 43 national universities, and it subsidizes the salaries of faculty and staff, operating costs, and building facility costs. There are also 345 private universities, which have been established by private foundations and secure their revenues mainly from tuition and educational foundations, except for grants for research and special-purpose projects from the government. In addition, local governments have established 10 public universities. Ministries other than the MEST have established 16 colleges or universities that train students in special areas, such as national defense, culture, information technology, and industrial technologies.

#### **Life-long Education**

Life-long education includes all other forms of education. Life-long or continuing education programmes across the nation are supported by the MEST and other ministries, as well as by LEOs and local governments. For example, 33 of 234 local governments received financial support in order to develop their cities as "life-long education cities" (Ministry of Education and Human Resource Development, 2007b). The Ministry of Labor also subsidizes workers and potential workers who take vocational training through institutions and private academies.

### **Policy and Planning**

Seven five-year education sector plans were initiated by the Ministry of Economic Planning<sup>5</sup> between 1962 and 1996 (see Figure 1). The first four were part of Economic Development Plans (1962–1981) and the next three were part of Economic Social Development Plans (1982–1996). These education sector plans shared the orientation and framework of economic development and were formulated taking into account the growth rate of the national economy and the Gross Domestic Product (GDP). Education sector plans established the total amount of investment in education and included goals for education sub-sectors. They were prepared by the Ministry of Education or the Korean Educational Development Institute (KEDI) or both, with the support of experts in education, such as administrators, professors, and researchers.

The education sector plan of the Seventh Economic Social Development Plan for 1992–1996 analyzed issues that had an impact on social change, such as globalization, democracy, autonomy, localization, and diversity, as well as issues related to the Korean education system. The plan proposed new goals such as education for the whole man, excellence in education, and education to further equity, globalization and autonomy. It also set targets to measure the achievement of goals, such as school attendance rates, the percentage of students who went on to higher level education, class sizes, and student-teacher ratio. To this end, the

<sup>4</sup> Forty five percent of five-year-old children.

<sup>5</sup> The Ministry of Economic Planning evolved into the Ministry of Planning and Budget in 1999, and the Ministry of Strategy and Finance in 2008.

total expenditure needed to attain these goals was calculated, as well as the additional funds needed from the government to complete the plan.

In addition to education sector plans, education plans with long-term outlooks were developed. In 1965, a 10-year Secondary Education Development Plan was devised to expand opportunities at the secondary level. In 1968, a 50-member Educational Council for Formulating a Long-Term Plan was established, with the Prime Minister as chair and the Education Minister and Budget Minister as vice-chairs. The council drafted a 15-year comprehensive education plan (1972-1986) before it was disbanded in 1971 and replaced by an Advisory Council for the Education Minister.

The Long-Term Comprehensive Education Plan for the period from 1972 to 1986 was the first to include long-term perspectives on economic development, demography, social and cultural changes, and developments at both political and administrative levels. It also addressed the future of the education sector, from classrooms and curriculum to buildings and facilities, administration, financing, informal education, special education, overseas education, and unification preparatory education plans (Educational Council, 1970). In 1972, the Seoul Metropolitan Educational Office created its own draft plan that covered the same 15-year period; however, because the national plan had no follow-up, the Seoul sub-national draft was not further developed (Kim, 2003).

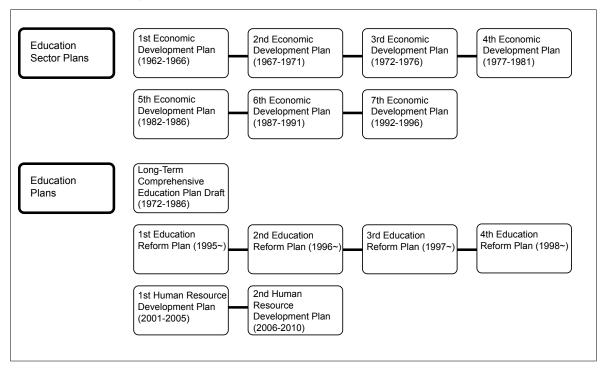


Figure 1. Education Sector Plans and Education Plans

The 1980s and 1990s introduced a series of national education reform initiatives. The Education Reform Council was established as a Presidential Advisory Council in 1994, and it would produce four education reform plans, the last one in 1998. The focus of these plans on meeting new challenges continues to have an impact on policy formulation and implementation by the current MEST. More recently, the National Human Resource Development Plans (2001-2005 and 2006-2010) cover not only education, but also human resource development (e.g. training of the work force), and have supported workforce training initiatives (including training people other than students) at pre-primary, primary, secondary, and university levels.

Performance indicators demonstrate the success of long-term perspectives and the vision of education over four decades (see Table 1). School attendance rates in 2007 were above 90 percent in the primary, middle school, and high school levels. There is still a need for commitment to increasing opportunities in the two sub-sectors that have lagged behind: pre-primary education, at 36.2 percent, and higher education, at 69.4 percent. The ratio of students moving up the school ladder was very high, almost 100 percent for high schools and 82.8 percent for higher education. The government now needs to focus on students who drop out of school at the middle and high school levels, and those who cannot access education, especially at the pre-primary and higher education levels.

Table 1. Educational Indicators for Korea in 2007

	Pre-primary education	Primary school	Middle school	High school	Higher education
School attendance	36.2%	99.3%	96.0%	91.3%	69.4%
Students going to a higher stage of education			99.9%	99.6%	82.8%
Dropout students			0.9%	1.6%	-
Class size (number of students)	22.7	30.2	35.0	34.3	30.1
Student- teacher ratio	16.2	22.9	19.1	16.1* (13.5**)	-

<sup>\*</sup> Student-teacher ratio in general high schools \*\* Student-teacher ratio in vocational high schools

Note 2: The drop-out rate in general high schools was 1.0 percent, while that in vocational high schools was 3.1 percent in 2007.

Source: Ministry of Education and Human Resources Development and KEDI, 2007.

Strong performance indicators, in combination with the decentralization of K–12 education to LEOs and the autonomy in higher education, have eliminated the rationale for a single, comprehensive plan within the MEST. However, the MEST continues to play an important role in ensuring that all students from pre-primary to higher education have adequate educational opportunities, and in strengthening national competitiveness. To this end, the MEST now formulates medium-term sub-sector programme plans or project plans, especially in the areas of education welfare, free pre-primary education and higher education. For example, the first and second stages of the Brain Korea 21 project, which run from 1999 to 2005 and 2006 to 2010 respectively, were initiated to strengthen research-oriented universities. In addition, five-year Educational Welfare Plans (2004–2008) were developed to address the widening gap in education performance based on socio-economic status.

Clearly, the MEST must prioritize strategically to allocate resources among sub-sectors competing for funds, for example, K–12 education versus higher education. In addition, in order to secure funding for new initiatives without reducing funds for existing programmes and projects, the MEST must persuade the Ministry of Strategy and Finance (MOSF) to raise the education sector and sub-sector ceilings. In Korea, presidential elections are an important stage in the development of education initiatives. Presidential candidates present comprehensive education reforms or plans during the campaign and may abolish and replace education policies after the election.

Note 1: The proportion of students going from general high schools to universities was 87.1 percent, while that of students going from vocational high schools to universities was 71.5 percent in 2007.

Since local governments are separate from LEOs, they do not initiate local education plans. The 16 LEOs are responsible for local education, and thus the local governments play a limited role in educational development. LEOs might have medium-term local educational development plans, but they are not mandatory.

## II. Financing the Education Sector

#### **Medium-Term Fiscal Framework**

The fiscal year in Korea starts on 1 January and ends on 31 December. Expenditures for each fiscal year must be appropriated with the revenues for the same fiscal year. A national medium-term fiscal framework (MTFF) must be submitted to the National Assembly not later than 90 days before the start of a new fiscal year (Republic of Korea, 2007).

In 2003, the Ministry of Planning and Budget (MOPB) introduced the five-year national MTFF with top-down budgeting and performance-based budgeting systems. Since previous financial management systems were based on an annual budget, an important innovation of the MTFF is that it allows for a medium-term and long-term perspective on financial planning. The first MTFF was formulated in 2004 and covered the period of 2004–2008. According to the State Finance Act, Korea must review and reformulate the five-year MTFF every year to reflect the annual budget and changing conditions. The MTFF is a forward-looking system that targets future years. For example, the five-year MTFF (2007–2011) was completed in October 2007. The next year the MTFF would include the 2008 budget and might reformulate targets for 2009–2011.

The seven economic development plans formulated between 1962 and 1996 were the first versions of an MTFF, in that they covered five-year periods and were based on economic prospects. In addition, a medium-term financial operation plan had been formulated in 1982 to ensure the efficiency and soundness of financial operations according to the Budget and Account Act. However, while the purpose of these development plans was to support national economic growth, legislation did not mandate that they be linked to the annual budget, as is required of the MTFF introduced in 2003.

The MTFF was introduced to ensure financial soundness from a medium-term perspective, rationalize resource allocations, and extend autonomy to each ministry in the process of planning and executing sector budgets. The MTFF incorporates the national development plan. It includes an analysis of the economic and financial outlook for five years, including international and domestic economic growth rates, revenues and expenditures, tax burden ratio<sup>6</sup>, projections of national debt, and the basic direction and objectives of the financial operation, medium- to long-term financial prospects, resource allocation plans and sectoral investment directions.

### Top-down Budgeting and the MTFF

The MTFF and the medium-term expenditure framework (MTEF) for all sectors are formulated at the same time. Prior to 2003, a bottom-up budgeting system was used in Korea. In effect, ministries competed for financing because they formulated budget requests based on the total cost of all programmes and projects identified within their own ministry. These budget requests were then submitted to the MOPB<sup>7</sup> for review. Bottom-up budgeting made it difficult to maintain multi-year perspectives and to control aggregate spending. It was not optimal for allocating resources to sectors, nor did it utilize the expertise in ministries. Moreover, it led to game-playing between the national budget office and line ministries (Korean Institute of Public Finance, 2005).

<sup>6</sup> The ratio of total national and local tax revenues to national income

<sup>7</sup> In 2008, the MOPB was changed into the Ministry of Strategy and Finance (MOSF).

Korea has used top-down budgeting<sup>8</sup> since 2003. The MOPB sets a ceiling for each ministry and gives each the autonomy to formulate its own budget. Each ministry prioritizes programmes and projects, and formulates a budget within the ceiling. Top-down budgeting should not be confused with top-down decision-making. It sets the total ceiling and sector ceilings of line ministries. Once these ceilings are established, the process of formulating the annual budget and sectoral MTEFs reverts to a bottom-up system that makes use of the expertise of line ministries and their agencies. Stakeholders and citizens can also provide input. The MOSF provides guidelines that assist ministries to prioritize programmes and projects within the allotted ceiling. Top-down budgeting has reduced, though not eliminated, the game-playing problem because the sector ceilings for each ministry are set by the Ministry of Strategy and Finance (MOSF).

The annual budget is linked with the MTFF. The MOSF notifies the head of each central government agency of the guidelines for compilation of the budget bill for the following year, which is approved by the President after the deliberation of the State Council not later than 30 April. The budget ceiling for each ministry is included in the guidelines to link the annual budget with the MTFF. Each ministry must submit a written request for revenue and expenditure budgets, continuing expenditure, specified carry-over funds and acts to which liabilities are borne from the Treasury for the following year not later than 30 June. The written request for budget must be accompanied by documents necessary for the compilation of the budget and showing the application of budget management rules. The MOSF might demand revisions if a written request does not follow the compilation guidelines.

The budget bill is then prepared by the MOSF and goes to the State Council for deliberation and to secure the approval of the President. The State Finance Act stipulates that the Government must submit the budget bill to the National Assembly at least 90 days before the start of the fiscal year. The budget covers all central government agencies, as well as independent agencies such as the National Assembly, the Supreme Court, the Constitutional Court, and the National Election Commission.

The National Assembly can revise the budget bill, but only by decreasing the budget. The agreement of the government is required to increase the budget or introduce new items. The budget bill must be finalized by majority vote of the National Assembly, not later than 30 days before the start of the fiscal year.

#### **Contents of the MTFF**

First of all, the MTFF starts with a long-term vision of national development based on an analysis of changes in the economic and social environment. For example, the MTFF for 2007–2011 analyzes the following: rapid globalization; the rise of Brazil, Russia, India, and China, as well as Asian economic blocks; the low birth rate in Korea and an aging society; and the worsening income gap between the rich and the poor. To meet these challenges, the MTFF demands a paradigm shift in four areas. First, economic growth and economic welfare are pursued simultaneously. In the past, the most common strategy for national development has been to prioritize growth. The three other areas are the development of human resources, the expansion of social capital and the promotion of globalization.

In addition, the MTFF shows linkages with long-term national development plans (for example, Vision 2030) and with one-year financial operations, such as the budget and funds operation

<sup>8</sup> Top-down budgeting begins by estimating the total costs. The overall budget is divided among sub-sectors and then among projects and programmes.

plan based on the budget for the fiscal year. The MTFF presents the direction of financial investment, and includes an accounting of financial balance and national debt, as well as a concrete resource allocation plan. Important financial indicators, such as government expenditure in relation to GDP and the tax burden ratio for individuals, are highlighted in the MTFF.

In Korea, expenditure directed to the economic sector is still relatively high and expenditure on social welfare is relatively low when compared with spending in OECD countries, as shown in Table 2. Expenditure on the economic sector decreased in the early 1980s, but increased in the 1990s due to rising social overhead costs and subsidies to support development in agriculture and the fishery industry. It then decreased again after 2000 as the private sector led the economy. Expenditure directed to social welfare has exceeded expenditure on the economy since 2004. It is likely that social welfare expenditure will increase in the future as programmes are initiated to meet the challenges created by a low birth rate, an aging population, and the need to expand pensions.

Table 2. The Percentage of Expenditure on Sectors (%)

	Korea (2005)	Australia (2005)	Sweden (2004)	United States (2005)	Canada (2004)
Expenditure on social welfare	26.7	51.4	54.5	56.4	58.1
Expenditure on economy	21.0	6.6	10.6	6.6	5.9

Source: International Monetary Fund Government Finance Statistics Yearbook, 2006; MOSF Settlement of Accounts, 2006, draft, as cited in Ministry of Planning and Budget, 2007.

The MTFF for 2007–2011 reflects a total expenditure increase of 6.9 percent, with priority in resource allocation being given to social welfare. Total expenditure in each of the five years (converted to USD) has been set, as follows: 238.4 billion (2007), 257.3 billion (2008), 274.1 billion (2009), 292.1 billion (2010), and 311.2 billion (2011). With respect to resource allocation, the social welfare and health sector is the largest in this five-year period, at a total of 374.4 billion, and has the highest annual increase rate, at 9.7 percent. Education is the second largest investment, totaling 189.5 billion, as shown in Annex 2.

### **Education Sector Budget**

The fiscal year for the education sector is from 1 January to 31 December, although the school year<sup>9</sup> starts on 1 March and continues until the end of February. Under the top-down budgeting system introduced with the MTFF, the Ministry of Education, Science and Technology has autonomy to create an annual budget for the education sector. However, the budget must adhere to the guidelines, sector ceiling and sub-sector ceilings established by the MOSF. In 2007, the MEST spent USD 31.2 billion on K–12 education, higher education, vocational and life-long education. The annual expenditure on education in Korea also includes funds from local governments, students and parents.

<sup>9</sup> There is one exception for national universities: the school year starts on 1 January and ends on 31 December.

Per-student spending increases at each higher level of the education ladder. The annual expenditure per student<sup>10</sup> for all education services in 2004 was USD 2,520 for pre-primary education, USD 4,490 for primary education, USD 6,761 for secondary education, and USD 7,068 for tertiary education (OECD, 2007).

The relative contribution of public and private financing of education varies widely according to sub-sectors, as shown in Table 3.

Public expenditure accounts for 79.5 percent at the primary and secondary levels combined, reflecting the fact that education is compulsory at the primary and middle school levels. Preprimary education, on the other hand, is not compulsory in Korea, and it is free only to the 5-year-old children of low-income families. This explains why the public sources account for only 37.9 percent of expenditure in this sub-sector. As for tertiary or higher education, household and other private sources bear a considerable burden based on the benefit principle.

Table 3. Public and Private Expenditure on Educational Institutions (%)

	Public		Private sources		
	sources	Household expenditure	Expenditure of other private entities	Total private sources	which are subsidized
Pre-primary education	37.9	59.6	2.5	62.1	6.0
Primary and secondary education	79.5	17.8	2.7	20.5	0.8
Tertiary education	21.0	55.6	23.3	79.0	0.3

Source: OECD, 2007.

The budget ceiling for education is provided to the MEST in April. The MOSF sets the total ceiling for the sector and stipulates four sub-sector ceilings, as follows: primary and secondary education, including kindergarten; higher education; life-long and vocational education; and others such as administration. The total and sub-sector ceilings are incremental, in that they are based on the previous budget in education, but adjusted to the priorities of resource allocation in the medium- and long-term perspectives of the MTFF and the MTEF for the education sector.

Since top-down budgeting was first applied in 2005, the ratios of respective sub-sector budgets to the total education budget have remained almost the same, with primary and secondary education at 86.1 percent, higher education at 10.9 percent, life-long and vocational education at 1 percent, and other sub-sectors at 2 percent (see Table 4). This may be attributed partly to the restrictions that sub-sector ceilings place on the autonomy of the MEST in budget formulation. If the MEST needs funds for new policy initiatives in a sub-sector, it must allocate money from within the ceiling for that sub-sector, so that would usually involve eliminating or downsizing an existing programme.

The MEST formulates its own budget under the total and sub-sector ceilings between April and June. Ministry staff hold consultations with agencies, experts and stakeholders during the process of formulating the annual budget request. The MEST process must establish a budget mediation committee, a budget mediation subcommittee, and a budget review committee (see Figure 2). The process is top-down to the extent that MEST sets ceilings for bureau that implement programmes and projects, and bottom-up in that the Ministry mediates budget

<sup>10</sup> In equivalent USD converted using purchasing power parities (PPPs) for GDP

requests through its budget mediation committee and sub-committee and the involvement of division directors. At the last stage, the Vice Minister convenes a budget review committee to finalize the budget. The MEST has 28 programmes in General Accounts and National Balanced Development Special Accounts: seven in primary and secondary education, 13 in higher education, seven in life-long and vocation education, and one administration programme.

The budget review committee finalizes the annual education budget, and the MEST must submit its budget request to the MOSF no later than 30 June. The MOSF collects and reviews all the budget requests from the ministries and decides on a government budget bill. After the President approves it through a deliberation of the State Council, the budget bill must be submitted to the National Assembly at least 90 days before the start of the fiscal year.

Table 4. Sub-sector Budgets as Share of Total Education Budget (USD billion)

	2001	2002	2003	2004	2005	2006	2007 (draft)
Primary and	18.4	19.1	21.3	22.8	24.0	24.9	26.9
secondary education	(85.1%)	(84.6%)	(85.4%)	(85.8%)	(85.6%)	(85.6%)	(86.1%)
Higher education	2.3	2.5	2.8	2.9	3.2	3.3	3.4
	(10.6%)	(11.2%)	(11.1%)	(11.0%)	(11.3%)	(11.2%)	(10.9%)
Life-long and	0.3	0.3	0.3	0.3	0.3	0.3	0.3
vocational education	(1.3%)	(1.4%)	(1.3%)	(1.1%)	(1.1%)	(1.1%)	(1.0%)
Others	0.6	0.6	0.5	0.6	0.6	0.6	0.6
	(3.0%)	(2.8%)	(2.2%)	(2.1%)	(2.0%)	(2.1%)	(2.0%)
Total	21.6	22.5	24.9	26.6	28.0	29.1	31.2
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)

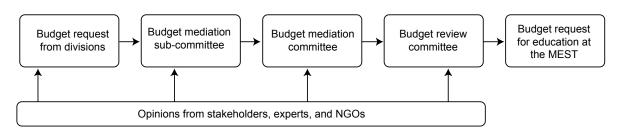
Source: KEDI, 2006.

According to the State Finance Act, the annual expenditure budget must be used in the fiscal year. However, the following exceptions are allowed: (1) specified carry-over funds which are not expected to be completed within the fiscal year due to their nature, (2) expenses for which an act causing disbursement is expected in the fiscal year, but cannot be performed, (3) expenses requiring a public notice of tender, prescribed by presidential decree, that results in unavoidable delay in an act of disbursement, (4) compensations for losses necessary for the execution of any project for public interests or other public services, and (5) ordinary expenditures prescribed by presidential decree. It is further stipulated that a ministry must not use the expenditure budget for any purposes not specified in the budget, nor transfer it between agencies or chapters, sections or paragraphs, as specified in the budget. However, exceptions are allowed with the approval of the MOSF.

The introduction of top-down budgeting means that the MEST has the autonomy to make better use of the expertise of education experts in budget formulation within the ceiling set for the education sector, although the fact that sub-sector budget ceilings are also set by the MOSF inhibits the MEST from allocating resources according to its priorities (KEDI, 2006).

As discussed, the size and ratio of the sub-sector budgets are virtually unchanged, which suggests that the opinions of stakeholders could be better reflected in the budget preparation process. Top-down budgeting also requires that performance be evaluated as a result of executing the budget, and this must be reflected in the budget formulation process, as illustrated in Figure 2 (KEDI, 2006).

Figure 2. MEST Budget Formulation Process



Source: KEDI, 2006.

## III. Medium-Term Expenditure Framework

The education sector MTEF is a five-year plan formulated within the MTFF. First of all, the MTFF is established on the basis of mid- and long-term economic prospects in order to strategically allocate national resources and maintain financial soundness. By projecting GDP growth and tax revenue, the MTFF allows all the sectors to estimate the future availability of revenues and spending. The process of developing the sector MTEFs starts in late December each year when the MOSF provides guidelines to budget officials of line ministries. The MOSF holds meetings with budget officials of line ministries to explain the guidelines. It also holds consultations with experts and various stakeholders to collect public opinion. The MOSF organizes a working group to formulate the MTFF and sector working groups for sector MTEFs, in collaboration with the Korean Development Institute (KDI).

Starting in January, the working groups analyze macroeconomic prospects and performance resulting from investment as they prepare the MTFF. The process for developing sector MTEFs is carried out in much the same way as the process for developing the MTFF. The working groups define policy issues and host public debates on each sectoral MTEF, collecting opinions from all levels of society. A public hearing, which is broadcast on television, is convened on education and educational issues. In 2006, for example, the competitiveness of universities was a major focus of the public hearing on the MTEF for the education sector (Working Groups of MTEF for Education, 2006).

Concerns have been raised that members of the sector working group for education lack expertise in the field (KEDI, 2006). In 2006, a researcher in KDI led the 10-member working group for the 2005–2009 education MTEF and only three members were educators. The group was comprised mainly of economists and scholars in finance.

In April, the President convenes the two-day state resource allocation meeting on the MTFF and the MTEFs for all sectors with State Council members. Key components of the MTFF and MTEFs are finalized, including the total expenditure size, the budget balance, sector ceilings, and priorities across all sectors at the central government level. After this meeting, the drafts of the MTFF and MTEF continue to be revised until September.

The education MTEF presents total expenditure and policies and programmes on education for a five-year period that includes the previous and current fiscal year, as well as the next three years. Within the education sector MTEF, MEST formulates an annual budget; which is submitted to and finalized by the MOSF and the National Assembly. Table 5 shows a summary of the above-mentioned process of formulating the education MTEF, using the education MTEF for 2007-2011 as an example, and with reference to the process of formulating the 2008 Annual Budget Bill.

### **Contents of the Education MTEF**

The MTEF for the education sector is based on budgeting for programme implementation, but the breakdown for sub-sectors is an aggregate of programmes within a particular sub-sector, (for example, primary and secondary education rather than individual programmes). Therefore, the MTEF for the education sector is not as detailed as the annual budget.

Table 5. Process of Formulating the Education MTEF and the Annual Budget Bill 2008

Education MTEF for 2007-2011	Annual Budget Bill 2008
MEST is notified of the MTFF Guidelines for formulating education sector MTEF (January 2007).	
MOSF organizes working groups for MTFF and sector MTEF for education (January 2007).	
Establishing directions for investment in education is opened for public debate and public opinion is measured (March 2007).	
State Resource Allocation Conference by State Council members (14 April 2007)	Guidelines for compilation of the budget bill and the ceiling for the education sector is advised (30 April 2007).
	Formulation of the MEST budget from April to June before submission on 30 June 2007
Reflecting 2008 budget bill and macroeconomic prospects in the second half of the year (September 2007)	
The approval of the President through a deliberation of the State Council (September 2007)	The approval of the President through a deliberation of the State Council (September 2007)
MTFF including education sector MTEF submitted to the National Assembly (September 2007)	2008 budget bill submitted to the National Assembly (September 2007)
	Budget bill adopted by the National Assembly (not later than 30 days before the fiscal year begins)

Source: Ministry of Planning and Budget, 2007; Ministry of Government Legislation, 2007.

The education MTEF starts with an evaluation of the performance of finance operations in the sector during the previous five years. Because indicators of performance in education are hard to define, inputs and outputs of total investment in education are presented, rather than a focus on results-based performance. The results of the OECD Programme for International Student Assessment (PISA) for K–12 education, along with articles published in scholarly journals for higher education, are common sources of how well the education system has performed.

Despite the outstanding PISA ranking achieved by students in Korea, the gap between high and low performers in K-12 education is an issue. This is being addressed through education welfare projects. In higher education, research projects such as Brain Korea 21 and the World Class Universities Project have been initiated.

The education MTEF for 2007–2011 presented the following findings on past investment outcomes:

- investment in education increased by an average of 6.8 percent per year over the last five years;
- the Local Education Financial Grant increased to 20 percent of domestic tax in 2008 from 19.4 percent in 2007;
- with 22,750 articles published in journals in the Science Citation Index, Korea ranked 11th in 2006, up from a ranking of 16th place in 2000, with 12,010 articles;

- after-school programmes were initiated to reduce the cost of private education and lessen the gap in educational performance; in 2006, 98.7 percent of schools participated and 41.9 percent of students attended these programmes;
- student loans had benefited about 1 million students by the spring semester of 2007, amounting to USD 3.2 billion in tuition; and no-interest loans to students from low-income families had increased; and
- academic performance was excellent as judged by the OECD PISA, with Korean students ranking second in reading, third in math, and fourth in science, but satisfaction with education was low and private education costs were very high.

Three key recommendations for policies and financial investment in education are made in the MTEF for 2007–2011, as follows: expand investment in higher education in order to strengthen national competitiveness and social integration; increase local government involvement in primary and secondary education in order to get more funds; and co-ordinate planning of human resource investments and performance evaluation.

As the MEST has not formulated a comprehensive education plan since 2007, the MTEF for education has not been based on any comprehensive education plan. Instead, the MTEF for education reflects the strategic priorities in education which are derived through decision-making processes within or beyond the MEST. Throughout the planning and budgeting processes, many stakeholders seek to persuade the MEST and the MOSF to address their interests in the annual budget request and the budget bill. While expenditure for K–12 education has been stabilized by the Local Education Finance Grant Act<sup>11</sup>, the higher education sub-sector has been vocal in its demands for an increase in its ceiling in the education sector budget. The proportion of students who attend universities or colleges has been increasing and reached 82.8 percent in 2007. The burden for increasing costs at universities and colleges has gone to students and parents. Tuition fees from students and parents were the largest source of revenue, amounting to 48.6 percent in 2005, for universities and colleges (Ministry of Education and Human Resources Development, 2007d). This has led to a campaign for a new financial support system as a stable funding source, known as the Higher Education Finance Grant, modeled on the Local Education Finance Grant for K–12 education.

#### **Education Sector Investment Priorities**

The MTEF for 2007–2011 set a number of investment priorities (see Annex 1). It calls for an increase in investment in the education sector by an average of 8.6 percent per year over the next five years. In order to further develop infrastructure and research and expand opportunities in higher education, the MTEF proposes investing an additional USD 1 billion in higher education in 2008. As well, it recommends that more scholarships and interest-free loans are made available to students from low income families, so that education becomes a ladder of social mobility.

The MTEF has a strong focus on higher education. The vision of world class universities is promoted by a request for funding, beginning in 2008, to invite distinguished scholars from around the world to come to Korea. Funding priorities include the second-stage Brain Korea 21 project (2006-2012), which helps students in graduate programmes and post-doctorate scholars to conduct research in a stable environment, and research initiatives in science, technology, humanities, and social sciences. Other investment priorities in higher education are intended

<sup>11</sup> According to the Act, 20 percent of the domestic national tax and the education national tax go to the K-12 sub-sector. The budget for K-12 education was about 86 percent of the whole education budget in 2007.

to increase the number of foreign students invited to Korea by the government; expand the number of admissions staff at universities; strengthen academic-industry research partnerships; and respond to the needs of business. Buildings and facilities identified as priorities for improvement include laboratory facilities and the research and education buildings at national universities, as well as loans to enable construction of additional dormitories and research facilities at private universities,

The MTEF also prioritizes improving primary and secondary education, supporting education welfare, and funding after-school programmes and voucher programmes for students from low-income families. With respect to English language education, investment is recommended to increase the number of native English-speaking lecturers at teachers' colleges, as well as to develop English tests for primary and secondary students that can substitute for the Test of English as a Foreign Language (TOEFL) and the Test of English for International Communication (TOEIC). Priority areas to meet the needs of businesses include: offering life-long education through colleges; improving vocational education; advancing the workforce supply and demand forecasting system; and establishing an investment analysis evaluation system.

#### Medium-Term Local Education Finance Plans

Superintendents of local education offices (LEOs) must establish Medium-Term Local Education Finance Plans based on the economic and financial prospects of the MTFF and the MTEF for education at the state level. LEOs must report plans to Local Assemblies and submit them to the MEST. Compiling the plans produced by the LEOs, the ministry formulates a Comprehensive Medium-Term Local Education Finance Plan, which must be presented to the State Council every year, as mandated by the Local Finance Act.

Figure 3 shows the process of formulating the Medium-Term Local Education Finance Plan 2006-2010. The process of formulating a Comprehensive Medium-Term Local Education Finance Plan is bottom-up, while the plan must be established within the MTFF and the MTEF for the education sector.

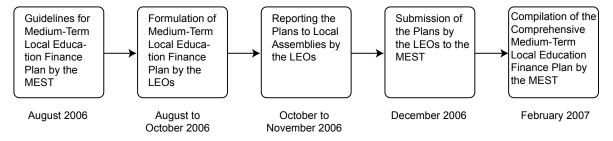


Figure 3. Medium-Term Local Education Finance Plan 2006–2010

The Medium-Term Local Education Finance Plans prepared by LEOs cover a period of five years (the previous year, the current year and the next three years) and take into account the national economic plan, the national finance plan for education, and interests and initiatives at the local level. They include analysis of the financial report of the previous year, as well as estimates of demography, revenue and expenditures for the next three years, such as investments in school buildings and facilities, salaries for teachers, and programmes to improve student performance (Ministry of Education and Human Resource Development, 2007a).

### IV. Resource Allocation

Resource allocation from the MEST differs according to sub-sectors. The MEST allocates resources to LEOs for K–12 education, and the 16 LEOs then distribute a portion of the money to schools. The MEST also allocates resources to universities for the higher education subsector and to other educational institutes for life-long education and vocational education.

#### Resource Allocation for K-12 Education

There are three revenue sources in K-12 education: the MEST, local governments, and sources attached to the LEOs. In 2006, the total budget (converted to USD) for the LEOs was 33.2 billion, of which 24.9 billion (75 percent) came from the Local Education Grant distributed by the MEST. Transfers from local governments amounted to 6.5 billion (19.6 percent), and revenues from tuition and other sources contributed 1.8 billion (5.4 percent). The Local Education Finance Grant is a very stable resource allocation, being comprised of national education taxes 12 and 20 percent of the domestic tax. The MEST distributes the grant among LEOs according to a formula that calculates the difference between the standard fiscal need and standard fiscal revenue of each LEO (see Figure 4). In addition, the MEST allocates small 13 subsidies to LEOs for national projects such as educational welfare and special education.

The standard fiscal need The standard fiscal revenue Grant for each LEO Teacher and staff salary Transfers from local taxes by Local Government School and curriculum operating cost Transfers from local education LEO administration taxes. local taxes, and a School buildings and facilities tobacco consumption tax Pre-primary education Tuition and entrance fee After-school programmes School land share by residents · Local education bonds refunds Small school consolidation incentives

Figure 4. Local Education Finance Grant Formula

Source: Ministry of Education and Human Resources Development, 2007c.

Standard fiscal need is based on itemized costs that are calculated by a formula. These items include the salaries of teachers and staff, school and curriculum operating costs, buildings and facilities, after-school programmes, and so on. The standard fiscal revenue includes the contribution of local governments from local education taxes and transfers from local taxes, as well as a tobacco consumption tax, and revenue from tuition and other sources. There has been discussion about the need to simplify the determination of fiscal need, perhaps by using a formula based on the number of students. This has come about because of concerns that LEOs increase inputs under the present formula, which calculates many different items. For example, teacher and staff costs are estimated by multiplying the number of teachers and staff

<sup>12</sup> The ratio of national taxes to local taxes is about 80:20 in Korea.

<sup>13</sup> Subsidies for national projects constitute about 1.2 percent of the K-12 education budget in 2008.

by an average annual salary. School and curriculum operating costs are based on minimum standard education costs (KEDI, 2005) at the school, class, and student levels.

The LEOs formulate expenditure budgets for K–12 education and control spending on salaries, the single largest expenditure at 65.4 percent, as well as major capital works (see Table 6). Money is distributed to schools in the form of a block grant, which is calculated by the LEOs according to funding formulas, and educational programmes or projects that LEOs initiate at the local level are earmarked as special purpose grants. Thus, the LEOs make resource allocation to schools in two ways: general purpose grants based on the number of students and classes; and special purpose grants, which must be spent as determined by the LEO.

Most private schools, other than several independent private secondary schools and private primary schools, also receive funds from the LEOs, as do vocational high schools. Since vocational high schools need high-tech facilities, they are allocated more money per student than a general high school.

Table 6. LEOs Expenditure Accounts by Function, in USD Million and by Percentage

Salaries for	Operation	School	Educational	Repayment	Others	Total
teachers and	of schools,	buildings	programmes	of local		
staff	regional	and facilities	and projects	bonds		
	educational					
	offices, and					
	LEOs					
213.74	25.87	50.48	25.84	10.80	2.25	328.98
(65.4%)	(7.9%)	(15.4%)	(7.9%)	(3.3%)	(0.1%)	(100.0%)

Source: Ministry of Education and Human Resources Development, 2006.

The extent of the centralization of resource allocation by the LEOs is problematic. To ensure efficiency and effectiveness of resource management, more funding in the form of block grants needs to go to schools. Special purpose grants also need to be reduced and consolidated into general purpose grants, so that schools can exercise more autonomy in allocating resources. Since schools have independent accounting systems, they create their own revenue and spending budgets, which are then submitted to the school boards.

The various revenue sources at schools<sup>14</sup> in the Seoul Metropolitan Education Office, as shown in Table 7, illustrate the dominance of LEOs in resource allocation at the local level of the education sector. LEO transfers accounted for 71.7 percent of school revenue in 2004. Grants from local governments and parents contributed 3.5 percent, which raises the issue of equity. Schools located in affluent areas are more likely to receive higher grants from these sources. Regarding LEO transfers, special purpose grants need to be reduced and consolidated into general purpose grants so that schools can exercise more autonomy in allocating resources.

With revenue from the various sources, school administrators create a spending budget for their own site. The costs associated with operating schools and providing instruction accounted for more than 60 percent of total expenditure in 2004. By function, the breakdown of expenditure at schools (Seoul Metropolitan Education Office, 2005) was, as follows: operation (31.6 percent),

<sup>14</sup> Based on 5,449 primary schools (50.3%) in Seoul Metropolitan City and four provinces

instruction (30.5 percent), salaries for staff assistants<sup>15</sup> (15.8 percent), facility maintenance (12.1 percent), student services (5.8 percent) and allowances for teachers (4.2 percent).

Table 7. School Revenue by Source in 2004

Sources	LEO Transfers		Tuition and	School	Grants	Grants and	Balance
	General purpose grants	Special purpose grants	fees	revenue from user fees and	from local governments	donations from parents and	brought forward
Percentage (%)	48.9	22.8	14.4	3.0°S	3.2	0.3	7.4

Source: Seoul Metropolitan Education Office, 2005.

### **Resource Allocation for Higher Education**

The MEST allocates resources to universities or institutions based on various criteria. First, the MEST provides subsidies to national universities for expenditures related to salaries and operation. Using a formula based on the number of students, faculty, staff, school buildings and facilities, the MEST provides item-based grants for salaries, operations and facilities.

Second, the Ministry also allocates resources for projects on the basis of a funding formula introduced in 2008.

In the past, the MEST had set certain eligibility qualifications for project-based funding and had invited universities that met the criteria to enter an open competition. The shift to a funding formula based on important educational indices has increased the autonomy of universities. For example, the funding formula components of the Project for Education Capacity Reinforcement of University for Excellent Human Resources include the employment rate of graduates as an educational result, the student enrolment rate, full-time faculty rate, the percentage of students receiving scholarships, and per-student educational spending.

Third, another recent change in resource allocation will increase MEST funding for graduate schools and research activities, with funding units being moved from institutions to professors or researchers. The proportion of funding for professors or researchers is about 28 percent in 2008, but will increase to 44 percent by 2012 (MEST 2008a).

Fourth, the MEST is also planning to establish scholarship foundations to increase the number of students eligible for student loans. Students from low-income families will have more access to loans with better terms and to scholarships and interest-free loans. Under the National Basic Livelihood Security System, students from the lowest-income families are eligible to receive USD 4,200<sup>16</sup> per year, based on enrolment with 12 credits in 2008.

<sup>15</sup> Staff assistants are hired to support teachers and regular staff from the schools' revenue. Salaries for regular staff as well as teachers are from the LEOs.

<sup>16</sup> Average tuition amounts to USD 4,167 per year at national universities and USD 7,383 at private universities.

### Settlement of Revenue and Expenditure Accounts

Audit reports and evaluation of performance are reflected in the budget preparation process and the budget bill. By the State Finance Act, the line ministries prepare annual settlements of revenue and expenditure accounts, which need to be submitted to the MOSF by 28 February of the following year. The MOSF writes the settlements of revenue and expenditure accounts and submits them to the Board of Audit and Inspection by 10 April of the following year. The Board of Audit and Inspection examines the settlements and then delivers its report to the MOSF. Finally, the Government submits the settlement of revenue and expenditure accounts to the National Assembly by 31 May of the following year. The MOSF also requires the ministries to evaluate the performance of some programmes, and then reflect the results in the following year's budget according to the Performance-based Budgeting System that was introduced in 2003.

In 2005, for example, the MOSF selected 55 projects from the ministries, with a total expenditure of USD 35 billion. Eight of these projects were in the education sector, and evaluation was done by the MEST. Two projects were assessed as "good" and six at a lower level ("not so good, not so bad"). When the MEST formulated its budget the following year, it increased the budget of the "good" projects by 18.3 percent. The budget of one of the lower-rated projects was reduced by 8.3 percent, whereas the remaining five projects stayed at the same level, or were actually increased because of their importance. As for the 55 projects chosen for evaluation that year, the budgets of those assessed as "excellent" increased by 32 percent and the budgets of those assessed as "good" went up 16.7 percent, whereas projects deemed "not so good, not so bad" had their budgets reduced by 5.8 percent and expenditure on "bad" projects was cut by 33.5 percent (KEDI, 2006).

A similar system is in place at the local government level, but LEOs submit settlements of revenue and expenditure accounts to their local assemblies. Categories may differ, depending on the nature of the accounts and institutions. For example, the settlement of a school expenditure account is categorized by functions: instruction, salaries and personal expenses for staff, administration, student services, facility maintenance and operations, and reserves.

Primary and secondary schools write their settlement of accounts independently. School principals must report to school governing boards and submit the settlement of accounts to LEOs, which then conduct audits. Schools have revenue from a variety of sources, including LEO transfers, grants from lower-level local government entities such as counties, donations from parents and others, user fees and balances brought forward. Even though schools have annual fiscal years, they can carry over the budget from the previous year.

Universities also independently have their own budget and account system. With respect to grants for salaries and operations, national universities may carry over the previous budget. However, subsidies or categorical grants that have special purposes may not be carried over, but must instead be returned if there is unspent money within the fiscal year. Other higher education institutions also return money to the MEST if they do not spend their entire grant.

Since national universities receive grants for salaries and operating costs, they must submit the settlement of accounts to the MEST, which conducts the audit. In the case of project grants, the settlement of accounts is written on the basis of projects, and the ministry audits just the project grants at higher education institutions, vocational colleges and life-long education institutions, rather than auditing the whole account.

### V. Issues for Further Consideration

The medium-term planning perspectives incorporated into economic development plans from the early 1960s through the 1990s, as well as the financial innovations since 2003, have all contributed to the success of the education system in Korea. Building on capacities fostered by the government over four decades of planning and budgeting processes, the current MTEF process involves more stakeholders in the development of the education sector.

Within the MTFF, the education sector MTEF is formulated with attention to both future objectives and an evaluation of past investment in education. The education sector MTEF reflects input from various stakeholders involved at different levels of the education system, and it is the basis for formulating annual budgets. Since the State Council deliberates on revenue and spending in both the MTFF and sectoral MTEFs, the entire process includes medium-term and long-term perspectives.

However, since the new President was inaugurated in March of 2008, there have been tax and budget reductions that influence the financial operating system. All sectors are impacted by a budget reduction in the 2009 budget bill request from the MOSF, which may disrupt the top-down budgeting system and weaken the authority of line ministries in terms of their ability to make budget requests that meet the needs and priorities of their respective sectors.

With respect to the process of formulating the MTEF for education, two key issues need to be addressed. First, more educators should be involved in this process. The education sector MTEF is initiated by the MOSF, and the working group is composed mainly of economists and financial experts. In order to expand input from experts in education, it may be preferable to have the MEST or Korean Educational Development Institute take the lead in developing the education sector MTEF, similar to the way the former Ministry of Education and KEDI led the working team that produced education sector plans within the Economic Development Plans of past years (KEDI, 2006).

Second, the top-down process whereby the MOSF sets sub-sector ceilings in the education sector reduces the decision-making ability of the MEST. Investment across sub-sectors should be devolved to the MEST, allowing the Ministry to exercise greater autonomy within the total education sector ceiling determined by the MOSF. At present, the initiatives of the MEST are limited because it cannot allocate resources according to its strategic priorities. Investment in higher education and K–12 education, in particular, might be restructured if the MEST controlled sub-sector ceilings. In sum, the MEST needs to take the lead in formulating MTEF for education and in making decisions about investment in sub-sectors.

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Annex 1. MTEF for the Education Sector 2007–2011 In USD Billion

	2007	2008	2009	2010	2011	Average annual increase rate (%)
EDUCATION TOTAL	04.4	25.0	20.0	40.0	40.7	increase rate (70)
EDUCATION TOTAL	31.4	35.6	38.0	40.6	43.7	
(increase rate %)		(13.6)	(6.6)	(7.1)	(7.4)	8.6
HIGHER EDUCATION	3.6	4.5	4.5	4.6	4.8	
(increase rate %)		(24.0)	(1.7)	(2.9)	(3.5)	7.6
Student loans and others	0.2	0.4	0.4	0.4	0.4	12.5
Research funds	0.4	0.4	0.4	0.4	0.4	5.2
PRIMARY & SECONDARY	27.4	30.7	33.0	35.5	38.3	
EDUCATION (increase rate %)		(12.2)	(7.3)	(7.7)	(8.0)	8.8
Local education grant	26.9	30.6	32.9	35.4	38.2	9.2
LIFE-LONG EDUCATION	0.3	0.4	0.4	0.4	0.4	
(increase rate %)		(13.4)	(3.0)	(3.0)	(3.1)	5.5
Life-long & vocational education	0.3	0.3	0.3	0.3	0.3	2.4
International education	0.04	0.04	0.04	0.04	0.04	2.6
ADMINISTRATION	0.1	0.1	0.1	0.1	0.2	
(increase rate %)		(15.1)	(6.2)	(6.0)	(6.1)	8.3

Source: Ministry of Planning and Budget, 2007.

**Annex 2. Resource Allocation in Main Sectors 2007–2011** In USD Billion

	2007	2008	2009	2010	2011	Annual
						increase (%)
Social Welfare and Health	61.4	67.5	74.7	81.9	88.9	9.7
Education	31.4	35.7	38.0	40.7	43.7	8.6
Transportation and Local Development	18.4	18.9	18.9	19.2	19.9	1.9
Agriculture, Maritime Affairs, and Fisheries	15.9	16.5	16.8	17.2	17.7	2.8
Industry and Small and Medium Enterprises	12.6	12.6	12.7	12.9	13.1	1.0
Environment	4.0	4.4	4.6	4.7	4.9	4.9
Culture and Tourism	2.9	3.1	3.1	3.2	3.2	3.1
National Defense	24.5	26.7	29.1	31.7	34.5	9.0
Public Order and Safety	10.9	11.6	12.4	13.1	13.9	6.2
Unification and Foreign Affairs	2.4	2.6	2.7	3.0	3.2	69
Research and Development	9.8	10.9	11.8	12.8	14.0	9.3
National Balanced Development	7.2	8.1	9.2	9.9	10.9	10.7

Source: Ministry of Planning and Budget, 2007.



United Nations Educational, Scientific and **Cultural Organization** 

#### **UNESCO Bangkok**

Asia and Pacific Regional Bureau for Education Education Policy and Reform

- Mom Luang Pin Malakul Centenary Building 920 Sukhumvit Road, Prakanong, Klongtoey Bangkok 10110, Thailand E-mail: epr@unescobkk.org Website: www.unesco.org/bangkok Tel: +66-2-3910577 Fax: +66-2-3910866