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SODNOMTSEREN ALTANTSETSEG

Financing of State Higher Education in Mongolia: Constraints and Opportunities

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NATIONAL UNIVERSITY OF MONGOLIA

SODNOMTSEREN ALTANTSETSEG

**FINANCING OF STATE HIGHER EDUCATION
IN MONGOLIA:**

CONSTRAINTS AND OPPORTUNITIES

ULAANBAATAR

2002

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STATEMENT OF AUTHENTICITY

This policy research paper contains no material that has been accepted and published at any publishing house and any University or other educational institution. To the best of my knowledge and belief, it contains no material previously published or written by another person or persons, except where due reference has been made. Views and recommendations made in this paper and any mistakes and omissions rest with the author.

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ABBREVIATIONS

ADB	Asian Development Bank
AUSAid	Australian Agency for International Development
EU	European Union
GDP	Gross Domestic Product
GNP	Gross National Product
IMF	International Monetary Fund
KOICA	Korean International Agency for Development
JAICA	Japanese International Development for Development
MOSEC	Ministry of Sciences, Education and Culture
MOFE	Ministry of Finance and Economics
NSO	National Statistical Office
NFST	National Foundation for Sciences and Technology
NUM	National University of Mongolia
UNDP	United Nations Development Programme
USAid	Agency for International Development, USA
WB	World Bank

EXECUTIVE SUMMARY

The decade of the 90's has seen a great reform agenda for the finance and management of higher education institutions. In some countries the financial problems are moderate, but in other countries they have grown to crisis proportion.

With the Government and political leaders who are enthusiastic about the role of higher education for economic growth and individual prosperity, publicly funded universities and colleges of Mongolia are experiencing shrinking spending for higher education. This is the current fiscal reality of the country caused by decline in tax-based revenue or difficulties with tax collection. Competing public needs such as poverty, public health, primary education and others are in higher priorities than higher education. In light of these factors, Mongolian state universities and colleges have to supplement government funding with other sources.

This paper provides a description of the higher education in Mongolia in an effort to identify important financial issues and concerns while comparing with international experience and tries to attract attention of policy makers for better alternatives of financing state universities and colleges.

The first two chapters outline the social, political and economic context and historical background of higher education in Mongolia, outlining general patterns of change as well as the more recent policy decisions that have affected its development.

In the following two chapters information is provided about state and private higher education institutions, student enrolment, financing patterns of state universities/colleges along with analyses of system efficiency, equity and access and quality and relevance.

Three options for improving efficiency of the Government funding policy are given in Chapter Five: those are introducing a mixed funding mechanism (performance-based and lump sum), changing National Student Loan and Grants System and possible treatments to state universities/colleges.

CHAPTER ONE. HIGHER EDUCATION ENVIRONMENT

1.1 Political Factors

It has been more than 10 years since Mongolia embarked market economy and democratic society. Democratic election held in July 2000 brought outstanding victory to the Mongolian People's Revolutionary Party: 72 seats in the Parliament. The new Parliament announced its action programme 2000-2004 primarily focused on solving social problems such as crime, corruption, alcohol abuse, unemployment, poverty and basic education.

1.2 Economic Factors

Mongolia has achieved great results during the last ten years, but it continues to face a significant number of difficulties. The economic growth averaged less than 3,5% a year during the latter period of 1990s. The GDP growth rate was modest, 1.1% during the year 2000 (2000 Population and Housing Census: Economic Activity, Ulaanbaatar, 2001, p. 9). The general government's annual budget deficit averages about 10% and the public debt rose to more than 100% of GDP by the end of 1999. To reduce the government deficit, the Government increased VAT rate from 13% to 15%.

Private sector has been developed rapidly and by 1999 it accounted for 64 per cent of total enterprises. In contrast to the growth of small and medium enterprises (SME), the biggest national industries are recovering slowly and some of them are still state-owned. The application of SME for education and sciences is that there are limited sources of private fund available for research, staff training and philanthropy.

Table 1.1. Rate of Growth and Composition of GDP, 1989-2000, Mongolia

GDP		1989	1990	1995	1996	1997	1998	1999	2000
Industry		32.7	35.6	25.9	18.5	24.0	18.3	18.1	17.4
Agriculture		15.5	15.2	38.0	43.8	35.9	37.5	37.0	33.4
Construction		6.1	5.0	1.7	2.8	2.2	2.5	2.5	2.3
Transport		12.0	12.0	6.4	7.4	7.7	8.8	9.2	9.5
Trade		19.0	19.4	17.7	17.6	22.0	22.3	22.0	24.7
Service		13	11.5	11.3	9.9	8.2	10.6	11.2	12.7
Other		4	1.2	0.1	-	-	-	-	-
		1.3	-2.5						
Annual GDP growth		4.2	-2.5	6.3	2.4	4.0	3.5	3.2	1.1

Source: 2000 Population and Housing Census Economic Activity, Ulaanbaatar, 2001, p. 9

1.3 Demographic Factors

1.3.1. Population growth

With a population of 2.3 million people, Mongolia is sparsely populated but highly urbanized. By 2000, 57% of the population lived in urban areas in contrast to 43% in 1990.

The population growth since 1990 has been constantly declining. Over the last eleven years, the population of Mongolia grew by 16.0% or at an average annual rate of 1.4% (2000 Population and Housing Census). The ageing is not a significant issue, however, the proportion of the population aged up to 14 declined.

With the slow growth of population, higher education system in Mongolia will face moderate long-term growth.

1.3.2. Variations by Income and Ability

More than 30% percent (870,000) of population lives in poverty, the average monthly income of people in Ulaanbaatar is US\$80 or 88.000 tugrics and in rural areas US\$ 60 or 66.000 tugrics. The average salary of public sector employees is US\$60 or 66.000 tugrics (NSO, 2000).

Mongolia is experiencing severe poverty. Nearly 36.3 per cent of the population live below the national poverty line of US\$17 a month. Poverty is marginally more severe in urban areas (NSO, 2000).

There is obviously a differing response to tuition levels among students of different economic backgrounds. Students from high-income households were much less tuition price-sensitive than students from low-income households. Increases in overall tuition levels will tend to significantly reduce the enrollment tendencies of low-income students. In other words, if the State has finite resources to underwrite the higher education of its population, the funds will have the greatest impact on enrollment of low-income students.

1.3.3. Variations by Sex

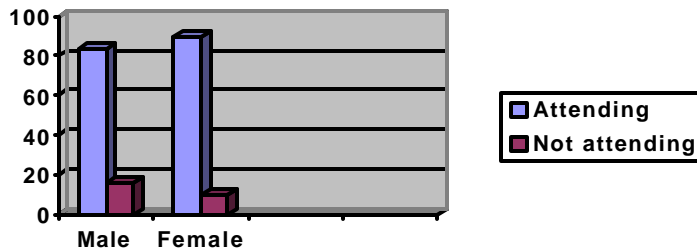
Perhaps, Mongolia is the only country where female students dominate in all types of education including higher education (from 60 to 90% of students are female). The Education and Literacy Data by NSO show that male population with higher degree decreased from 8.0% in 1989 to 7.6% in 2000, while female population with higher degree increased from 5.9% to 7.7% in respective years (Gender in Mongolia: Analyses based on the 2000 Census, 2002, Ulaanbaatar, p. 23).

The following factors should be taken into account to understand this phenomenon:

- In schools, female pupils dominate males. In urban areas the percentages attending school among the population 7-29 years olds are 53.6% for males and 59.5% for females. The levels are lower in rural areas showing 32.8% for males and 39.3% for females. At age of 16-19 years, only a third of males present in school compared to almost half in females. In urban areas, nearly half of males are in school in contrast to two thirds in females.

- Dropouts among boys are higher than those among girls. Around 17,0% of all male pupils aged between 8-15 are dropouts whereas the percentage is 10,5% for female pupils (B.Erdenesuren, presentation at Consultative meeting of World Bank and Donors, June 2001).
- Male population joins labour force at early age. Poverty among Mongolian population makes schoolboys join labour force at early ages (shoe shining, herding animals and carrying luggage in market).
- Crime, drug abuse and alcohol abuse are increasing teenagers and young male population.

**Figure 1.1 School Attendance of 8-15 Year Olds
By Sex, 2000**



Source: NSO, 2000 Population and Housing Census

1.3.4. Enrollment by Rural and Urban Students

A number of factors may affect enrolment by rural and urban students:

- Over the past two decades Mongolia has become increasingly urban in character: 57% of people live in urban areas; more than 9% of the population aged 5 years and over has changed places over the last five years, and the migration was mainly from Western and North-Western territories to Ulaanbaatar and Central province (NSO, Population and Housing Census 2000).
- Variations of income among urban and rural population as stated above may affect enrolment.
- Dropouts in rural provinces are higher than dropouts in cities: 75.8% of total dropouts are children from rural places.

Despite these factors enrolment by rural students are higher than that by urban students. This is a result of the Government quota policy that sets out the percentage and the number of enrolment for every city and province.

**Table 1.2. New entrants to Higher Education by Gender
1997-1998 and 1998-1999**

Level of education	1997-1998				1998-1999			
	Public		Private		Public		Private	
	Total	Female	Total	Female	Total	Female	Total	Female
Diploma	1566	77.1	151	41.7	1284	63.5	201	51.2
Bachelor	9303	66.3	5551	70.4	14057	58.6	8547	68.4
Master & PhD	851	62.2	5	80.0	724	67.0	9	77.8

Source: MOSEC, 1999

Table 1.3. Enrollment by Gender 1997-1998 and 1998-1999

Level of education	1997-1998				1998-1999			
	Public		Private		Public		Private	
Total No of students and % of female students	Total	% Female	Total	% Female	Total	% Female	Total	% Female
Diploma	4011	77.9	415	27	3764	71.4	330	53.9
Bachelor	31218	66.5	13646	71.5	40696	61.9	18748	70.4
Master & PhD	1657	61.9	14	85.7	1725	64.1	9	77.8

Source: MOSEC, 1999

1.3.5. Education Attainment and Employment

There is a positive relationship between education and employment. In total, 73.8% of the Mongolian strong labor force with higher education degrees have jobs while the rates for those with lower educational level are decreasing (2000 Population and Census Data, Economic Activity, Ulaanbaatar, 2001).

CHAPTER TWO. A DESCRIPTION OF THE POLICY

2.1 Historical Background

Higher education in Mongolia was founded during the communist period. The first state higher education institution the National University of Mongolia was established in 1942 with three faculties: medical, pedagogical and veterinary faculties in Ulaanbaatar. The University played a significant role in the development of higher education and sciences in Mongolia and gave birth to a number of universities. In 1957 Pedagogical Institute was founded and in 1958 the Veterinary Faculty separated from the University to become an Agricultural University. The Medical Faculty was reorganized as the Medical University and Technical University was separated from the University in 1960s.

Under the communist system, all costs of higher education were fully subsidized by the Government. The Government was involved in the policy-making, planning and development of the entire higher education from the first date of its foundation. A number of ministries shared responsibilities for education and all educational institutions were subject to applicable laws, regulations, policies and plans. University graduates were fully employed in accordance to the plan.

Early 1990s' economic crisis in Mongolia has long left many social issues unsolved. Insufficient taxable income, difficulties with tax collection added by the reluctance of people for tax deduction and abuse of tax regulations by business, individuals as well as by tax collectors and compelling public needs have made underfunding for public higher education institutions constant.

At the situation of fiscal deficit, the Government tried to identify those sectors of its economies in which there are possibilities for "cost sharing," namely, shifting greater portions of the burden of payment to the individuals who are the recipients or users of the services provided. Hence, it is understandable that a frequent target for cost sharing is higher education, a service that is both very expensive to provide and from which recipients can expect to receive significant financial benefits.

The 1991 Education Law of Mongolia, a package of Education Law (includes Higher Education Law) passed in 1995 and numerous executive orders by Ministry of Sciences, Education and Culture (MOSEC) were definitely responses to changes in higher education environment. Through these laws and legal acts, The Government tried to achieve twofold results:

- By transferring risks to private sector and individual universities/colleges, the Government tried to minimize fiscal deficits.
- While admitting establishment of private institutions, the Government tried to increase access to higher education.

2.2 Impacts of the Government Policy

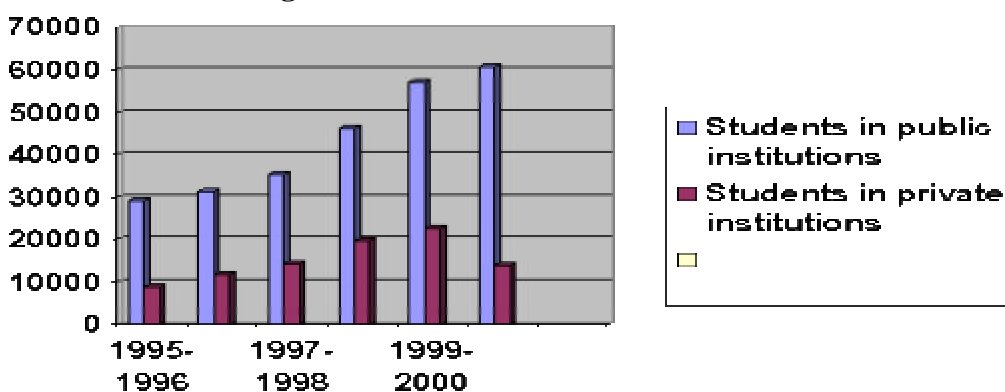
Ten years of reform since the first Education Law have brought the following favourable results:

- The establishment of private colleges and universities that intensifies competition and accessibility;
- Institutional autonomy and or devolution of authority from the government to institutions. (establishment of the Governing Board that has the power to approve budget and recommend the president of the university for MOSEC);
- The diversification of income sources of universities and colleges:
 - Tuition fee as a significant or complete source of revenue for the support of instructional and non-instructional costs;
 - The sale of research via grants and contracts and entrepreneurial training,
 - Entrepreneurial activities (lease of space, investment in private joint venture, faculty entrepreneurship);
 - Encouragement of philanthropy (scholarships to students, direct operations); and
 - International funding.
- Diversification of academic programmes.

Despite the favourable factors in higher education system, there exist a number of problems:

- Imbalance between supply and demand. Since 1995, while enrolment in private higher education institutions have doubled, there have also been large enrolment increases in state institutions (Annual report of MOSEC, 2000). Every year approximately 14,000 graduates from tertiary institutions join the labour market. Oversupply of specialists such as medical doctors, economists, business managers, lawyers, accountants and teachers appears to be a serious problem when it is added with inadequate skills of graduates who have demanding specializations.

Figure 2.1. The Number of Students 1995-2001



Source: MOSEC, Annual Reports

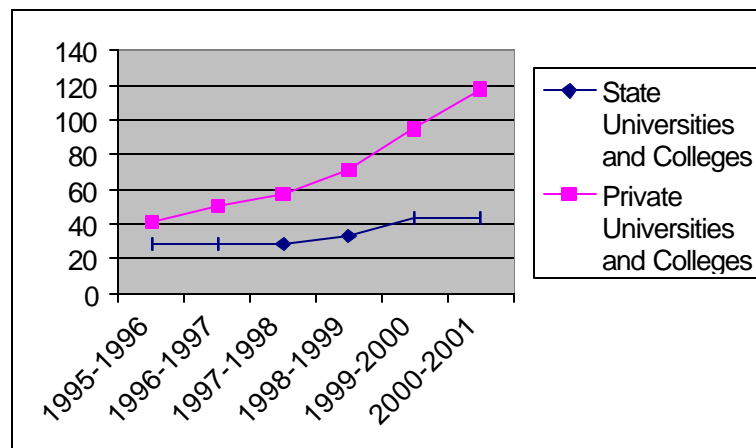
Table 2.1. Projections of Enrolment 2000-2005

Years	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005
Upper secondary	6226	8399 0.34% increase	9292 0.1% increase	9915/ 0.06%	11789 0.18%
Other	6226	6719	6504	6940	8252
Total	12452	15118	15796	16885	20041

Source: *Mongolia: Education sector strategy 2000-2005*, p 42

- Excess of higher education institutions. In Mongolia, there has been explosive growth in higher education institutions and enrolments since 1990. In less than ten years, there has been dramatic expansion of private higher education provision, non-traditional providers of academic training and influx of satellite operations of foreign universities offering business degrees and language programmes. By 2001, there have been 161 state and private higher education institutions mainly concentrated in Ulaanbaatar. This eventually leads to inefficient use of existing physical, human and financial resources.

Figure 2.2. Growth of Higher Education Institutions 1995-2001



Source: MOSEC, Annual Reports

- Quality and relevance of education have become major concern for in choosing educational institutions. By 2000, only 19 higher education institutions were accredited. Highly demanded courses are slow to develop and there is extensive overlap and duplication of programmes.
- Underfunding. During the whole period of 1990s higher education in Mongolia has experienced fiscal pressure as seen in declining student and institutional funding (absence of stipends, lack of library resources, equipment and deferred maintenance of buildings, extreme increase in costs for fundamental research and the training of staff). The competing claims exist from other public needs (public health, poverty etc) as well as within the education proportion of the Government budget such as need to expand or repair secondary schools and reform secondary

school programmes. Therefore, the problems of higher education must be addressed by efficient use of existing state resources supplemented by other funds.

2.3 Stakeholders of Higher Education

Higher education has a broad stakeholder base. Colleges and universities are of interests to:

- Students and their parents;
- The Government;
- Businesses; and
- Internal staff (Faculty members).

Each of these stakeholders brings their needs, worries and resources to universities.

Table 2.2. Higher Education Stakeholders and Their Expectations and Worries

	Internal staff	Students and Parents	Government	Businesses
Expectations	-Source of living -Further career & professional growth -Access to university resources	-Access to university assets and resources -Degrees/certificates -Preparation for lives (employment, wealth, further education, career)	-An educated citizen that correlated with high income, low unemployment and poverty, greater involvement in civic affairs -Educated individuals who can fill positions, -Positive effect on economic growth, social cohesion and reduction in welfare payments	-Well educated employees -A source of training for employees -Contractual work -Joint programs and activities
Worries and grievances	Complain about poor facilities and low salaries -Complain about work load and class size or students ability to study	-Complain about rising tuition, eroding facilities and poorly qualified faculty	-Dissatisfaction with high attrition and low graduation rates -Concern on tuition that may affect access to university and have impact on state budget	-Dissatisfaction with preparation of graduates -Complain about unresponsiveness of universities to their needs
Revenues contributed by stakeholders	Skills and knowledge	-Tuition fees -Money to purchase other educational services.	-Funding in the forms of institutional budget, -Research funding, -Provision of buildings and other facilities -Student aid	-Fees for training, research and other services -Donations -Scholarships and awards

Adopted from “*Higher Education Cost Measurement, Public Policy Issues, Options and Strategies*” 2000, The Institute for Higher Education Policy, p. 79

2.4 Involvement of International Institutions, Local NGOs and Universities in Policy Development

The ADB has provided subsequent grant funding for technical assistance in developing higher education policies as well as in strengthening the internal management and operational capacity of the leadership of both MOSEC and higher education institutions. Through the creation of a parallel initiative, the ADB issued loans to fund an Education Sector Development Program (Phases 1&2) that aims to accelerate the implementation of these policies; continue to expand training opportunities; provide technical assistance to reform efforts; develop curriculum in such areas as pre- and in-service teacher education, economics, and business; and acquire modern laboratory equipment as well as modernize and construct new educational facilities. Mongolia is also benefiting from its European ties: business, economics, and institutional strengthening projects funded by the European Union (Tacis and Tempus), distance education project by Danida and higher education reform (HESP) funded by the Foundation Open Society Institute (Soros).

The outputs of the international assistance in educational and scientific policy development are “Master Plan” and “Education Sector Strategy 2000-2005”. In higher education sector, strategies are pursued towards creating favourable legal environment, sustainable financial management and operations and quality improvement.

A number of non-governmental institutions were set up to make policy recommendations to the Government and the Parliament.

- Higher Education Reform Council (HERC)
HERC was established by the Great Ikh Khural in 1991 to provide advice on facilitating the reform of higher education, with special emphasis on making it more responsive to the demands of a market economy. The Chairman of the Commission is a member of Parliament and reports to the Chairman of Standing Committee on education, science and culture policy.
- Foundation for the Improvement of Higher Education
Foundation for the Improvement of Higher education was established to support HERC through fundraising, liaison with developing private enterprises and working on international cooperation.
- Consortium of Mongolian Universities and Colleges (CMUC)
The CMUC was established in 1995 by the initiative of five universities to foster cooperation among universities and colleges.

The impact of these bodies is very hard to judge. Each has no direct decision-making authority even though members of decision-making bodies are represented. Each has difficulty in determining the extent to which its work is being taken into consideration by either MOSEC or the Parliament.

The National University of Mongolia as the oldest, most experienced and well-respected university of Mongolia challenges to influence in the policy development through its President (President of the NUM is the adviser to Prime Minister on higher education

policy and sciences), members of the Governing Board (the membership composition includes members of Parliament) and Members of the Parliament who have come from the education sector or who have interests in education sectors. Recent involvement of the NUM in policy development was the discussion of the Draft Education Law to be discussed at spring Parliament session.

CHAPTER THREE. FINANCING OF STATE HIGHER EDUCATION SINCE 1990s

3.1 Recent Trends in Higher Education Finance

Complete and true illustration of the current structure of subsidies to higher education is difficult, because of the way the statistics are kept, and because subsidies can take the form of budgetary aid to universities/colleges, grants and loans to students, travel subsidies to students, research funding and so on. Data on some of these are not available or are unreliably reported.

On the expenditure side of the budget the Government's objective is to reduce the total expenditures and net lending by 1% of GDP. Current Government expenditures are expected to decline and from 37.06% of GDP in 1998 to a figure between 32% and 34% during the 2002. Capital expenditures will also be reduced to about 10% of GDP from a figure of 11,7% in 1998. These reductions will fall largely on domestically financed capital expenditures and the purchase of goods and services but the government will give priority to wages, pensions and key social expenditures. It plans to hold wages constant relative to the GNP (Mongolian Statistical Year Book, 1998, Ulaanbaatar National Statistical Office of Mongolia, 1999).

As far as the education sector is concerned, expenditure as a percentage of GDP remained relatively constant during 1995-1999 at around 5.5%. The total volume of expenditure on education in 1995-1996 was 23525,3 million tugrics which was made up of 15.8% of the total state expenditure budget. This amount was up to 47818,5 million tugrics in 1998-1999, however the percentage of the expenditure in overall state expenditure budget was down to 14.7. These amounts represent however reduction from the pre-transition conditions in 1990 when 11,5% and 17,6% of the estimated GDP and State expenditure budget, respectively were allocated to education.

**Table 3.1. Trends in Financing Education
2000-2003, (millions of tugrics)**

	2000	2001	2002	2003
Total state budget on education	77,096.8	87,073.0	86,140.8	86,512.1
State central budget on education (mainly H.E)	23,525.2	25,743.3	23,599.9	23,936.4
% in GDP	7,2	6.3	6,2	5,6

Source: Ministry of Finance and Economics 2000 Draft budget of Mongolia.

In 2001 state expenditure on education made 6.3% of GDP. In 2001 state budget allocated to education totals to 87,1 billions tugrics which is 12.9% higher than the previous year. Expenditure on education is getting high due to increasing number of students and school children generally, and due to expansion of student grants and loan.

The public expenditure on education and higher education in Mongolia is close to public expenditure on education and higher education in Slovenia (table 3.2).

The findings show that public expenditure on education in least developed countries averages 2.8%, in developing countries 4.1% and in developed countries 5.3% (UNESCO, 1995).

Table 3.2. Education Sector Expenditure in Various Countries

Countries	Expenditure on education as % of GDP	Public expenditure on education as % of total public expenditure	Public expenditure on H.E. as % of total public expenditure on education	Tertiary Expenditure for student as % of GDP per capita
Mongolia	6.3	14.7	17.9	74
China	2.54	16	19	81
Chile	3.6	16.1	2.7	21
Slovenia	5.8	12.6	16.9	38

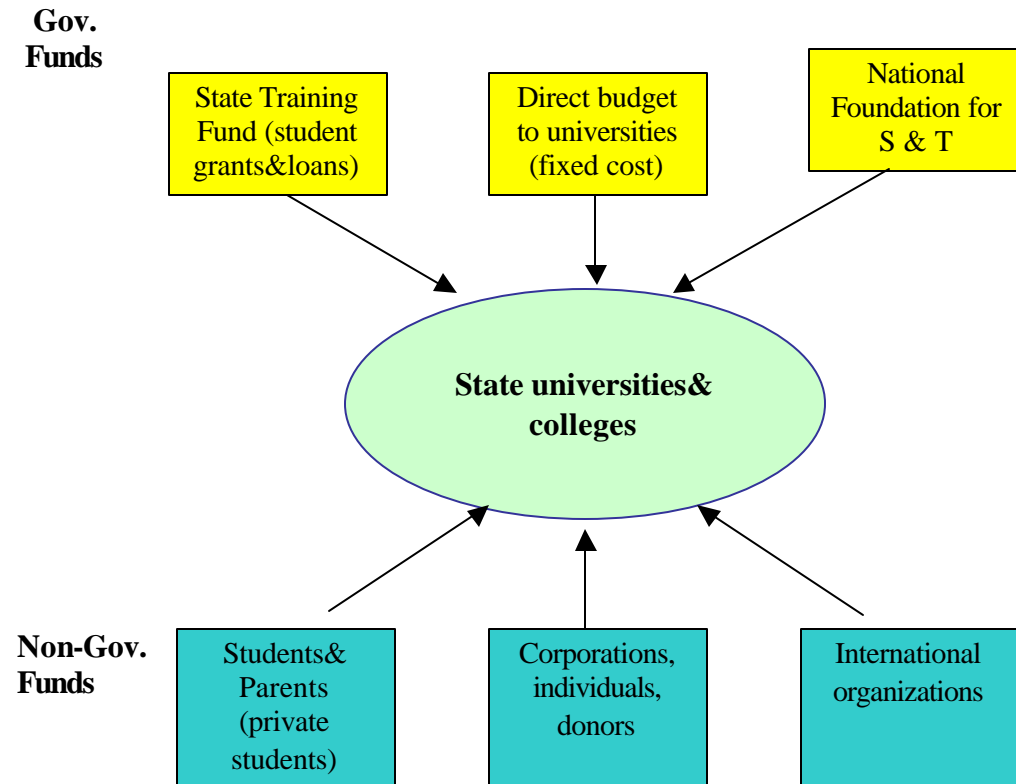
Source: OECD 1998; *UNESCO Statistical Yearbook* 1998, Paris & Mongolia, *Education Sector Strategy 2000-2005* 1999, MOSEC.

3.2 Sources of Funding for State Universities and Colleges

In Mongolia, state universities and colleges receive funds from four main sources:

- The state (fund for student grants and loans, fixed expenditure, research);
- Student (fees and tuition);
- International organizations (project and programme implementation, fellowships and laboratory equipment); and
- Individuals and businesses as gifts, scholarships and awards and contracts.

Figure 3.1. Funding Flows in State Higher Education Institutions



Source: Author

3.3 Relationships between State Higher Education Institutions, MOSEC and MOFE

The budget of any state higher education institution is developed by the appropriate financial division of the institution and reviewed by the Vice-president/deputy director for financial affairs. Then the draft budget is discussed at the meeting of a Governing Board. After approval by the Governing Board, the draft is forwarded to the MOSEC.

The MOSEC submits the aggregate budget proposal to the Ministry of Finance and Economics (MOFE). It has an opportunity to convey its requests and demands through parliamentary commissions and the respective members of the Parliament, who have vested interests in the area of education.

The MOFE reviews the budget proposals from all ministries and draft projections of income and expenditure. It has a right to establish very strict limits and/or adjustments in the course of budget preparation and implementation, following the immediate government priorities when funds are allocated to the most urgent bottlenecks. This may lead to serious budgetary adjustments and financial constraints for certain ministries, including MOSEC. The MOFE, in its turn, has a recurring problem, namely, the deficit of funds.

The consolidated draft state budget is assembled and submitted to the Parliament and the Parliament makes final revision and approval of the budget.

3.4 Price for Higher Education

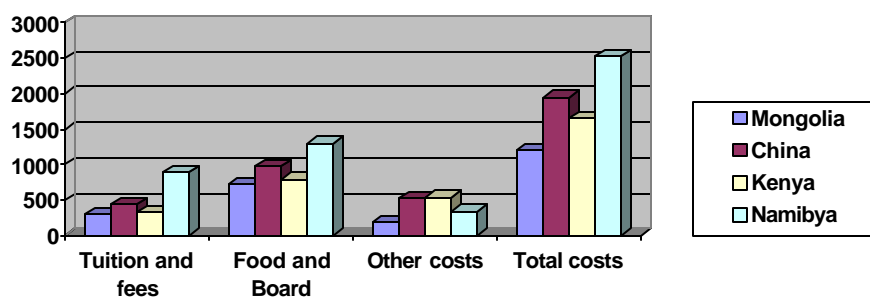
Currently, the price of higher education for a student varies with the level of education (Bachelor, Master and PhD), programme, financial aid status, residential status and students' living arrangements. The current tuition at state universities and colleges varies due to cost and programme variety. Programmes in high demand are more expensive than the programmes with lower demand. The tuition for medicine and pharmacy is the highest because of length of study (5-6 years) and associated costs. The average annual tuition is \$300 at Mongolian state universities and colleges. Annual non-tuition costs (food, accommodation and other personal expenses) are \$832 for students living with parents, \$1232 for students living in dormitories and \$2342 for students renting a private apartment (table 3.2). Higher education costs in Mongolia are close to costs in Kenya (figure 3.3).

**Table 3.3. Higher Education Expenses Borne by Parents and Students
Mongolia (\$1 =1100 tugrics as of 1st January 2002)**

		University degree programmes		
		<i>Bachelor</i>	<i>Master</i>	<i>PhD</i>
<i>Instru ctional Expens</i>	Tuition per annum	300,0	300,0	\$ 330,0
	Books & Other Expenses	70,0	100,0	\$ 100,0
	Subtotal Expenses of Instruction	370,0	400,0	430,0
<i>Student Living Expenses</i>	Accommodation			
	-Living with parents	0	0	0
	-Living in dormitory	120,0	120,0	120,0
	-Private one room apartment	1200,0	1200,0	1200,0
	Food			
	-Living with parents	240,0	240,0	240,0
	-Living independent	600,0	600,0	600,0
	Transportation	72,0	144,0	144,0
	Other Personal Expenses	100,0	100,0	100,0
	Subtotal Expenses of			
-Living with parents	532,0	604,0	604,0	
-Private housing	1972	2044	2044	
-In dormitories	892,0	964	964,0	
	One year cost to students or parents			
	-Living with parents	832	1044	1034
	-Individual students	1262-2342	1364-2444	1394-2474
	Total Cost to Parents or Students	4 years	1,5 years	3 years
	-Living with parents	3328	1566	3102
	-Individual students	5048-9368	2046-3066	4182-7422

Source: Information gathered by Author

Figure 3.2. Annual Total Higher Education Costs Borne by Students and Parents Various Countries, State Universities, Academic Year 1997-1998



Source: D. Bruce Johnstone and Preeti Shroff-Mehta, *Higher Education Finance and Accessibility: An International Comparative Examination of Tuition and Financial Assistance Policies* 2000, University of Buffalo, p 12 & Information by Author.

3.5 Government Fnding of State Universities

3.5.1. National Student Grant & Loan System

The state support for higher education in the form of financial assistance to students is not a new phenomenon in Mongolian society. Under the centrally planned economic system all students enjoyed free education, stipend to cover living and study expenses, travel allowances or discounts.

The introduction of tuition fees and the experience of its impact necessitated the Government to set up student loan and grants system. Based on the 1992 government resolution 107 and the “Procedure for financing state owned professional institutions”, the State Training Fund was established operating under the coordination of the MOSEC. There have been four steps in the development of national grant and loan system:

- 1992-1995
- 1995-1997
- 1997-1999
- 2000 and beyond.

1992-1995

Tuition fee was introduced starting from the academic year 1992-1993 in all types of universities (private and state) and accordingly the Government adopted the Law on Financing Professional Training Institutions (MOSEC, State Training Fund, 2000). The law specified fixed costs (heating, electricity, water, communication, administrative staff salary, social insurance, and repair and maintenance, inventory, uniforms and expenses to buy furniture) and variable costs (teaching staff salary, social insurance, fieldwork/ internship, costs to purchase books and other teaching/learning materials and research work expenses). Tuition fee of students were set out based on estimation of variable costs

minus research costs of staff. The Law stated that fixed costs would be financed from State central budget. The estimated budget would also be downgraded by the authorised institution by no more than 20%. State Training Fund, as determined in the Law, would provide:

- tuition fee to students who studied by state contract;
- stipend for needy students;
- stipend for talented students; and
- stipend to foreign student studying through bilateral contract.

Loan with annual interest rate of 3-5% would have to be provided to students. During this period enrolment and graduation were still regulated by the Government. Students studies by contract had to work at places approved by relevant ministries.

1995-1997

The State Training Fund's activities had become regulated by the 1995 Government resolution 194, Procedure for granting loan and assistance to students studying for diploma and bachelor degrees in universities, higher educational institutions and colleges.

According to the document, the following 4 categories of students were eligible for loans in the form of tuition fee:

- One student from very poor families with family income lower than the secured living standards;
- One student from disabled family;
- Not more than two children from low income family with both parents retired;
- Children from a single parent family;
- Tuition fee and travel expenses to students who studied overseas; and
- Stipend to students who studied in pedagogical institutions

The State Training Fund also provided grants to orphans and disabled students. In addition, one child of civil servant started obtaining tuition fee aid from the Government.

1997-1999

In 1997 the Government adopted new procedure “The Procedure for Provision of Tuition Fee Loan and Grants to Students from Universities/Colleges”. In addition to the categories of students who were eligible for loan and grants as described in the 1995 Procedure, the financial assistance was extended to students with outstanding academic achievements:

- Tuition fee assistance for the whole duration of study to students who won one of the first three prizes in international competitions;
- Two and a half years of tuition fee assistance to students who won one of the first three prizes in national competitions; and
- Tuition fee assistance for the remaining duration of study to students with excellent academic standing and outstanding research achievements and who were nominated by the rector for the assistance.

Since 1997 the Government started providing loan at the amount of \$15,000 to a student who studied at developed countries for Master and PhD. To obtain funding they had to be civil servants, make contracts with the Ministry of Education (upon completion of studies return to home country and work for the previous employer for five years) and “Public Servant” examinations.

2000 and beyond

In accordance with the Government Action Plan, there have occurred some favourable changes towards financial assistance to students of higher education institutions.

The Government fully funds tuition fee of:

- One child of herdsman’s family whose small cattles (sheep and goats) account less than 200;
- One child of family whose income is less than 40% of the minimal secured income determined by the National Statistical Bureau; and
- One child from the family that has more than three children studying at university/college.

Certain criteria should be met by the student: successful pass of entrance examinations and GPA of 2.0. In 2002 the government intends to free a student from tuition fee whose family has less than 500 small cattles. Loan in the form of tuition fee is extended to Master students studying at local universities and who graduated with GPA of more than 3.5.

Currently, the State Training Fund draws upon the state central budget for 80% of its expenditure and repayments of loans and interest for the remaining 20%.

Table 3.4. Categories Student and Types of State Aids In Mongolia

No	Categories of students	Types of Grant and Loan
1	*One child of civil servant	tuition grant
2	*A distinguished student	tuition grant
3	*A student from family under poverty	tuition grant
4	*A student from herdsman family with less than 200-500 cattles	tuition grant
5	*A student from family whose more than 3 children study at university	tuition grant
6	A student from remote five western provinces	return air ticket
7	Public transport card (50% discount)	Every student
8		Soft loan

*Only to students from accredited universities/colleges are eligible.

The review of the Government policy on student assistance approves that student grant and loan system in Mongolia is need-tested which means that the distribution of grants and loans are mainly among students from lower income backgrounds who have met

certain merit criteria. According to the MOSEC report, 30690 students (about 50% of total students) from accredited universities and colleges obtained 7979, 4 millions of tugrics aid (MOSEC 2001 report). In 2000-2001 approximately 26% of students studying in state universities/colleges obtained loans and grants and the remaining paid tuition fees (Ministry of Finance and Economics, 2000). About 75% of students from state universities/colleges who fell under the categories of “grant&loan students” obtained financial support. On average, aid ranged from U\$150 to 280 (11-22% of annual student expenditure) per student and students grants and loans make around 15-20% of the total expenditure of state universities and colleges.

Table 3.5. State Funding of Students Studying at State Universities & Colleges

Indicators		Total number of students	Funding (in million tugrics)
Soft loan	Total	11203	2912.8
	State universities and colleges	8380/74.8%	2178.8/74.8%
Non-payable tuition grant	Total	1306	339.6
	State universities/colleges	961/73.5%	249.9/73.5%
Awards	Total	187	48,6
Income-based tuition grants (students from poor, herdsman families, families with more than 3 children studying at Universities/ colleges	Total	4559	1185.3
	State universities/colleges and colleges	3640/79.8%	946.4/79.8%
One child of public servant	Total	14928	3881.3

Source: MOSEC, Annual report, 2001

Limitations of the Current National Student Grant and Loan System

It is obvious that a fee-paying system brings about a threat of discrimination against students from poor families. Students who could not secure funding from any sources or from poor families found it difficult to study and their places were taken by students with enough money to pay for themselves. Therefore, providing tuition assistance in the form of grants or some similar mechanism has improved access to higher education. A number of limitations exist in the Government aid programme:

- Student aid programme is a partial solution to increase equity and accessibility because of mismatch between total expenditure borne by students and parents and the government ability to contribute. The effects of unmatched or limited grants on students are seeking for part-time jobs or attend nearby institutions. However there are few part-time jobs accessible to students and nearly all universities and

colleges are located in Ulaanbaatar. Inequity in favour of students from Ulaanbaatar is evident because they do not need accommodation and have lower living expenses.

- Income and eligibility for grants and loan. It would be beneficial to fall into the categories of “grants & loan” students. In a country like Mongolia, where tax collection is hardly implemented due to poor track of income, determination of real income is almost impossible. Another issue is parental dependence or age limit of students who can be qualified for loan and grants. Criteria for grants and loan must include such issues like the length of financial assistance (from Bachelor to PhD or what), student age limit and dependency of young adult on parental income and his eligibility for loan and grants.
- Repayment of loan. When quality and relevance of higher education is low and national labour market cannot employ even half of graduates, it is hard to anticipate repayment of loans. Efficiency of loan system requires tight loan collection (up to date database of “loan students” after graduation and during the repayment period, enforcement of debt payment by various means e.g., contract, tax payment system etc).

3.5.2. State Budget for Fixed Expenditure of State Universities and Colleges

In accordance with the joint Resolution No133/198 of the MOSEC and the MOFE, the state is responsible for expenditures for heating, electricity and water supply of academic buildings. In practice, MOFE transfers bills for electricity, heating and water supply to Energy and Heat Distribution Authority and Water Supply Authority. The findings show that universities derive around 10% of their budget from the state in the form of heating, water supply and electricity budget.

Table 3.6. Direct State Support to State Universities/Colleges

In cash	Non-cash
Electricity cost	Building
Heating cost	
Water supply cost	
Research fund	

Source: Information by Author

3.5.3. Research Funding by the Government

Scarcity of public funding to R&D has resulted in diminished scientific research, poor quality, irrelevance and less applicability of research outputs. The migration of qualified young researchers and faculty members to well-paid jobs is evidenced. Laboratory equipment and facilities have become out of date and require immediate upgrading. To date, university research is funded by National Foundation for Sciences and Technology

through “call for proposal”. Generally, in the biggest universities of Mongolia total budget for research funded by NFST ranges between U\$50.000-80.000.

Limitations of Fixed Cost and Research Funding Mechanism

State budget for covering fixed cost to some extent means that state has to care for state fixed asset: centrally-heated building with electricity and water. If it is true the Government should care of repair and maintenance of building. But the Government did not have money for capital investment (NUM got \$5000 in 1995 for capital investment).

The National Foundation of Sciences and Technology, through which the Government budget is allocated to sciences and technology, has very limited money to fund long-term research. It is also unwritten principle that Academy of Sciences is awarded most of the grants for projects rather than universities. The reason is that the Government ought to give salaries employees of the Academy and subsidize Academy buildings.

Research grants through call for proposals” do not allow universities to support PhD students.

3.6 Non-Governmental Sources of Revenue

In accordance with the Articles 3,4&5 of the Chapter 4 of the Education Law, universities /colleges of Mongolia are now able to decide their organizational and management structure, human resource, salary rate, tuition rate, dormitory rate, investment, budget development and financial reports at their Governing Boards. Universities enjoy power to generate and tap additional sources of funds on their own, including tuition revenues, fees, research grants from public agencies and private companies and seek assistance from international financiers.

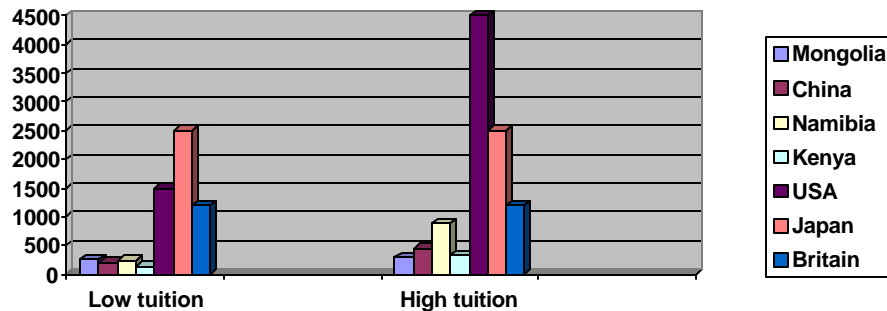
3.6.1 Tuition fee

The supplementation of the Government budget by student tuition was introduced in many developing countries with recommendations of international banks and agencies such as World Bank (WB), Asian Development Bank (ADB) and United Nations Development Agency (UNDP). The tuition was introduced in Mongolian state universities and colleges in 1993 following the 1991 Education Law. This decision was originally announced in July 1992, and was to have taken effect that year. A few public higher education institutions did admit some fee paying students in 1992, but the government after having been alerted to complexities in the implementation of the new policy, decided to delay general implementation until 1993. As seen from the budget preparation guide for universities and colleges tuition is based on full operating costs.

Between 1993 and 2000, tuition as a fraction of total university/college revenue grew from 20 percent to 80 percent on average. This is sharply high compared to international universities with high cost recovery ratios: income from tuition in public universities in

Vietnam makes 22 percent, in Chile 36%, in Korea 46% and in Hong-Kong 18% (Arthur K C Li, 1998).

Figure 3.3. State University and College Tuition Various Countries, Academic Year 1997-1998 (in U\$)



Source: D. Bruce Johnstone and Preeti Shroff-Mehta, *Higher Education Finance and Accessibility: An International Comparative Examination of Tuition and Financial Assistance Policies* 2000, University of Buffalo, p 12 & Information gathered by Author.

3.6.2. Entrepreneurial Activities

Entrepreneurial activities include non-degree programmes, contract research, consultancy services, leasing etc. Income from entrepreneurship is making around 10% of total University revenue (NUM, Financial report, 2000). With commercialization, out of university teaching has tremendously increased. University faculty members can now double their salaries through teaching at several institutions and working as consultants.

3.6.3. International Cooperation and Philanthropy

The role of international cooperation has become important for financing the following activities:

- Research projects;
- Institutional reform;
- Faculty development overseas;
- Student grants and awards;
- Student training overseas;
- Infrastructure development and laboratory renovation; and
- Academic programme development.

Universities cooperate with various types of international institutions:

- International and regional financial and non-financial institutions (World Bank, Asian Development Bank, E.U);
- Overseas development agencies (DAAD, JAICA, KOICA, USAID, AusAID);
- Foreign universities and research institutions;

- Private foundations (Soros);
- Foreign companies and joint ventures operating in Mongolia; and
- Individuals.

The foreign funding and philanthropic support (mainly from foreigners) at biggest universities of Mongolia makes up to \$2 million a year (if include funded study overseas, funded visits of international professors).

The significance of foreign funding sources is obviously high, but it should be considered that international agencies, which distribute 80% of foreign funding in Mongolia, are reluctant to provide general support. The trend is to fund specific projects according to their priorities. Besides that, the Mongolian Government sets their priorities to distribute aid money and resources and regulates faculty/ student exchange programmes through various cumbersome regulations and procedures. Therefore, there is a threat universities may lose their ability to set their own agendas, being forced to work on whatever projects donors prefer.

Limitations of commercialisation

- Conflict of interests and violation of intellectual property rights.
Contract research, training and consulting activities bring about conflicts of interests between university and faculty members. The people who bring in money to universities want to decide how to use it. Universities also want to participate in parts of income. There sometimes occur abuse of entrepreneurship when faculty members spend too much time on this kind of activities by improperly using university facilities, academic programmes and other intellectual properties. Therefore, there must be a clear policy on entrepreneurship.
- Differing marketability and uneven income. Commercialisation is more applicable to social sciences and humanities. Besides that, contract research is often not fundamental research. Thus, gradual shift from fundamental academic research, uneven distribution of income among faculties and appearance of poor and rich faculties may occur.
- It has been more than five years since university-based company was accepted by the Education Law, but none of state universities has set up a company. Vagaries of laws, overly cumbersome bureaucracy in applying regulations, unclear tax policy of the Government, absence of non-profit corporation law and the lack of MOSEC initiatives have hindered the implementation of this important article of the law.
- The universities and colleges invest in maintenance, expansion and renovation using tuition fees and other generated income, but they are unfairly treated by the State Property Agency. The State Property Agency has power to control all kinds of university assets (they are classified as state assets) from single computer to building, regulates asset-related relationships (purchase, sale and disposal) and extracts 50% of income from sale of assets. Universities lose money if they sell

unnecessary items. Because of that, assets are used improperly and inefficiently at state universities and colleges.

- The recent improvements in Mongolian economic performance will not significantly increase entrepreneurial support for university research. Private sector mostly consisting of small and medium enterprises is not sustainable enough to contribute to research and education.
- Dense competition for external funding. In a country like Mongolia, where one third of the population lives in its only city Ulaanbaatar (700,000) and almost all universities and colleges are located there, the competition exists in attracting and retaining human resources, obtaining and securing money inflow and physical resources. The competitiveness of individuals in lobbying and networking is crucial where all people know each other and shift from one place to another.

Limitation of philanthropy

- Universities are increasingly finding philanthropy as an important source of funding. However, individuals and business have not sufficient wealth to contribute to universities and this is not a tradition of Mongolians to give away.
- Corporations and individuals give money for special activities, but not for general purposes that can be used at the discretion of university.
- Successful philanthropy requires favorable tax treatment which is absent in Mongolia.

CHAPTER FOUR. THE NATIONAL UNIVERSITY OF MONGOLIA

4.1 General Background

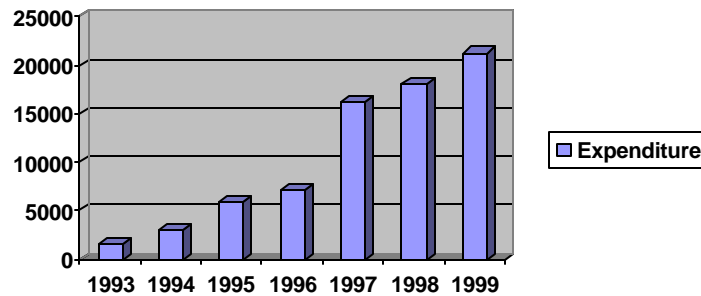
National University of Mongolia, currently one of seven state universities in Mongolia represents an interesting example for how it has financed its operations over the last few years.

The University consists of 12 faculties/schools and has branches in Hovd, Orkhon and Zavkhan provinces. The number of staff is 900. Several institutes and centers of the Academy of Sciences were merged with the University since 1993. The NUM is governed by the Board of Trustees and day to day activities of the University are executed by the President. The President spends extensive amount of time on financial matters. He has to evaluate the financial condition of the entire institution, make hard decisions to establish priorities and economise, set appropriate tuition rates, seek out needed funds from donor organizations, and above all, maintain tight budget controls.

4.2 The NUM Expenditure

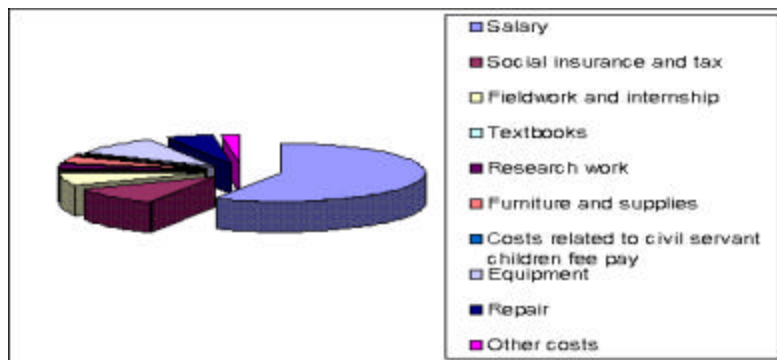
The NUM expenditure has been increasing dramatically over the years. This was due to inflation as well as the increase of prices for basic services such as prices for heating, electricity, water supply oil etc.

**Figure 4.1. Total expenditure of the NUM
1993-2002**



Source: NUM, 1993-2002

Figure 4.2 Fraction of Expenditure, NUM, 1999-2000



Source: NUM Annual report, 1999-2000, Ulaanbaatar, 2000

The largest part of the expenditure is faculty salaries. In the 1990s, average faculty remuneration levels rose, in inflation-adjusted terms, and average teaching loads remained unchanged at a time that has been otherwise characterized as financially difficult for universities. The training and re-training of faculty and staff to update their skills in relevance to academic reforms and information and communication technology applications became very costly. Another concern was students' stipends. The stipends have decreased as a percentage of the total expenditure of the NUM. Stipends are now mainly granted by benefactors.

Table 4.1. Fixed and variable costs of the NUM 1996-2000

	1996-1997	1997-1998	1998-1999	1999-2000
Electricity	59.4	64.9	64.9	97.9
Heating	56.2	65.6	65.6	134.4
Water supply	19.9	45.2	45.2	45.5
Total fixed costs	135.5	175.7	175.7	277.8
Total variable costs	967.3	1625.6	1669.7	2185.9

Source: Department of Finance and Economics, NUM, Financial Reports, 1996-2000.

4.3 NUM Revenue

4.3.1. Government financing

A. Fixed cost budget

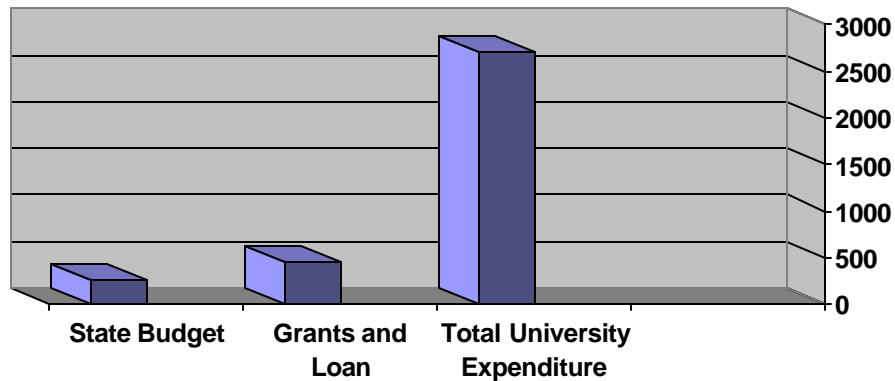
The fixed costs are financed from state central budget and include costs for electricity, water supply and heating. The Table 4.1. shows sources of revenue to fund the budget of the NUM from 1997-2001. The direct state budget amounting to 90% of total budget in 1992, decreased to 11.2% in 1997-1998 academic year and 9,6% in 2000-2001 respectively. During the next several years, it is anticipated that prices for several services such as electricity, steam, oil etc will rise. This will have major effect on all universities in Mongolia and will cause a difficult funding problem.

Table 4.2. Sources of Revenue, NUM, 1997-2001(millions of tugrics)

	1997-1998	%	1998-1999	%	1999-2000	%	2000-2001	%
Tuition fee	1138.7	72.3	1271,8	59,8	1603,7	72,5	1751,9	64,5
State Grant & loan to students	102.1	6.5	247,9	11,6	382.4	17.3	441.9	16.3
State budget	175.7	11.2	176.4	8.3	31.4	1.4	260.9	9.6
Dormitory Income	36.0	2.3	40.5	1.9	58.5	2.6	86.1	3.2
Apartments	4.0	0.3		0.0	12.3	0.6	17.3	0.6
Auxiliary enterprises	11.5	0.7		0.0	2.2	0.1	1.4	0.1
Other sources	106.2	6.7	389.0	18.4	122.5	5.5	156.7	5.8
Total	1574.2	100	2125.6	100	2213.0	100	2716.2	100

Source: NUM, Department of Finance

Figure 4.3. Total Expenditure of the NUM and State Funded Expenditure, 2001



Source: National University of Mongolia, Annual report 2001

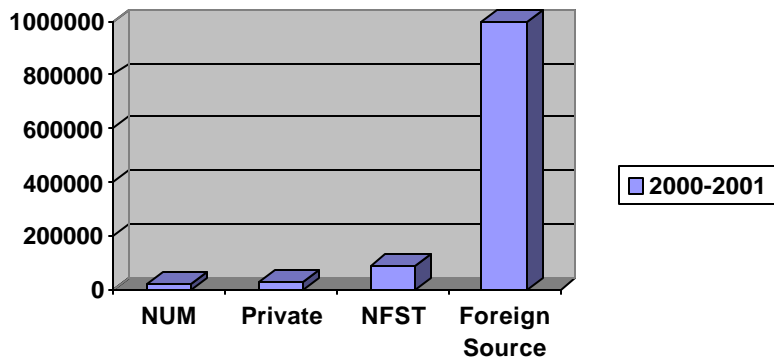
B. Student grants and loan

In contrast to direct institutional budget, the student grant and loan have been increasing between 1997-2000. State budget in the form of student grant and loan made 6.5% of the total NUM budget in 1997-1998 and it increased to 16.3% in 2000-2001.

C. Research funding by the Government

Unfortunately, research expenditure of the NUM has not been reflected in consolidated budget and annual financial reports of the NUM. This is due to a rule that, NFST requires separate annual report for the projects funded by itself. Income and expenditure of research funded by organizations other than NFST has not been estimated thoroughly by the Financial Department of the NUM. The figure 4.2. is based on survey of faculties/schools by the author. NFST fund for research projects ranges between \$50,000-60,000 a year. The main expenses are salaries of researchers, local trip, fieldwork and laboratory tests.

Figure 4.4. Sources of Research Fund, NUM, 2000-2001 (in US dollars)



Source: Annual report of the National University of Mongolia, 2000-2001

4.3.2. *Non-Governmental Revenue*

The University receives income from tuition, contract-based research and training services, consulting services, short-term courses, domestic and foreign donations, lease and bank interest.

A. Tuition

Tuition fee is the main source of the NUM. It made 72.3% of total budget in 1997-1998 and 64.5% in 2000-2001 respectively.

Table 4.3. Income from Tuition Fees 1996-2001

Academic year	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001
Average tuition fee (in tugrics)	110.0	214.0	232.7	290.0	300.0
Total number of students	5454	6217	7280	6414	6760
Grant and loan students	796	896	994	1216	1180
Private fee-paying students	4658	5321	6286	5198	5387
Income from private tuition (millions of tugrics)	512.4	1138.7	1462.8	1603.7	1751.9

Source: National University of Mongolia, Department of Finance

B. Entrepreneurial Income

The NUM has set up a number of business (profit centers) that will operate on full-cost recovery or profit making basis:

- The NUM Development Foundation was established as a non-profit and non-governmental institution with aim to contribute to the sustainable financial development of the NUM and infrastructure development. Income to the Foundation comes from students who have failed entrance examinations but still are willing to enter the NUM at additional costs. The amount of “donation” or “near missers” fee ranges from \$600 to %1000. Near missers pay this amount once to the NUM in exchange to admission to the university. The Government policy to set out admission quota each year to some extent creates a condition to enroll extra students.
- Printing House was restructured and renovated with the Japanese Government Cultural Aid Programme.
- NUM-Dankook Dental Clinic was established jointly with Dankook University, Korea.
- ARC” Asia Research Center is a non-profit organization that will financially support advanced research in humanities, social sciences and natural sciences. The ARC is fully financed by Korea Foundation for Advanced Studies. The total

annual budget of ARC is \$100.000 of which 10% are administrative expenditure, 40%-research fellowship in Korea and 50%-research grants in Mongolia.

NUM income from entrepreneurship makes around 10% of total revenue except NUM Development Foundation and ARC.

C. Donation

The NUM is distinguished as the national elite university, thus is has more potential for philanthropic support than any other universities and colleges in Mongolia. Donations are mainly made by foreign individuals and organizations. The university annual financial report does not reflect donations. A survey made by the author demonstrates that in-kind contribution was approximately \$100.000 in 2000-2001. The NUM is making tremendous efforts to attract benefactors. It has set up various internal incentives for donors through the procedure “Donor Procedure”.

CHAPTER FIVE. CONCLUSIONS

5.1 Trends in Financing State Universities and Colleges in Mongolia

By keeping limited state higher education institutions and encouraging private higher education institutions to increase participation the Government has minimized state fiscal deficits. Higher education costs are now shared between the state, students (or parents) and other non-governmental and private institutions.

It is hard to predict future Government funding for the education sector because, on the one hand, overall reductions in Government expenditures are proposed, but on the other hand, the proportion of GDP for education has historically remained about the same. An overall implication of these financial trends is that the education sector is unlikely to experience significant growth in funding. The further trend is that Government is gradually shifting to student financing.

5.2 Is state higher education in Mongolia really “STATE”?

The current Government policy on financing state universities/colleges raises the issue whether state universities/colleges in Mongolia are really “STATE”? In most countries if the government funding as a fraction of total funding makes no less 50%, they are called public or state (L. Badarch, American Universities). In Mongolia, tuition income in total university revenue makes 70-80% and other sources of non-governmental funding makes around 10% in state universities/colleges. The fact points out that Mongolian state universities/colleges can hardly be said “STATE” and fully governed by laws and regulations affecting public institutions (Law on management and financing of public institutions) and fully controlled by the State Property Agency.

5.3 Quality and Relevance

Higher education industry is one of the few sectors in the economy in which public and private producers coexist. By obtaining support in the form of budgetary aid and free accommodation, the state higher education institutions are encouraged to provide a better educational service, while increasing the pressure on private institutions to provide a cost-effective as well as quality service.

There appears to be considerable variation in quality across programmes within an institution as well as across institutions in Mongolia. In regard to international quality standard, the prospects are becoming increasingly remote because neither government nor university can afford to pay market prices to supply institutions with state-of-art educational, scientific, and technological facilities and equipment. The current cost of higher education in Mongolia does not include all the necessary elements of investment. State universities /colleges have to set out affordable that can not become financial burdens for the Government, students and parents. The prices for higher education in Mongolia are much lower than the prices of higher education in developed countries, but similar to China, Namibia and Kenya. With current financial scarcity, it remains a uncertain how quickly the Mongolian higher education will be brought up to international standard and get recognition.

On the other hand, oversupply of some professions makes public to worry about quality and relevance of higher education. Perhaps, this is misleading implementation of the Government policy for private higher education (issuance of licenses for the establishment of institutions offering similar programmes without proper evaluation of market) and slow development of the national accreditation system (only established in 1998).

5.4 Institutional Efficiency

The Government policy in funding has made state universities/colleges more initiative and adaptive. Universities/colleges now have to plan and prioritise core areas of development, manage costs and seek for non-governmental sources of funding costs.

Strategies introduced as means of reducing costs are decentralization of operational units in the institution (individual school/faculty as a cost center) and introduction of corporate principles such as management contract.

CHAPTER SIX. POLICY RECOMMENDATIONS

6.1 Policy Alternatives and Recommendations

To serve the national development interests of Mongolia, the Government should reasonably treat sciences, technology and higher education in national budgets and programmes. The following alternatives are discussed:

1. Should it be better to introduce another method of budget allocation?
2. Should the Government propose change of the National Student Scholarship System?
3. Are there other Government treatments than state budget?

Alternative 1. Introduce different budget allocation method

A number of different methods are used for budget allocation:

- Lump sum budget (based on enrolment) allows universities to decide themselves allocation of money according to their needs.
- Performance-based model drives public revenues by criteria other than enrolments such as degrees awarded, performance of graduates, success of faculty on competitive research grants, peer based scholarly reputation of the faculty etc. Performance based funding is used in Australia, Netherlands and Hong Kong.
- Formula-based funding mechanism. A funding formula, which differentiates unit costs and assigns weights to different fields of study and levels of education, is used to determine the budget allocation. This mechanism has several positive aspects. It allows more rational distribution of funds among higher education institutions and between disciplines; they correct major inefficiencies in the system, help in improving innovativeness and reducing costs.

In the Netherlands, almost 90% of Government funding are allocated as lump sum and institutions then themselves decide on the most effective distribution. Hong Kong adopted combination of input based and performance based funding. About 70% of funds are allocated according to student numbers and the remaining 30% is based on performance. After the grant has been calculated according to funding formula it is allocated as lump sum and universities have autonomy to use the funds at their discretion.

Performance based model can be introduced into Mongolian state universities (I exclude colleges) for allocation of research grants to universities. If appropriate criteria are set and the budget is reflected in budgets of MOSEC or NFST, graduate courses by research may gain strengths and interaction between research and teaching will be more achievable.

Alternative 2. Change National Student Scholarship System

The current grant and loan budget can be used as follows:

- Fund for local students studying at Mongolian universities/colleges (current need based funding system is acceptable); and
- Fund for international exchange (providing living allowance to foreign students studying at Mongolian universities through inter-university agreements). The Government of Mongolia provides a loan of at the amount of \$15,000 to a Mongolian student studying at foreign universities. But in 2002, the Government rejected to allocate budget for overseas study referring that there are enough foreign scholarships and opportunities. The Government will achieve better return on investment if it allocates some money to support Mongolian universities that exchange students and faculty with international universities:

-This is a way to share costs of faculty and student training between the Government, foreign and Mongolian Universities.

-Inter-university agreements are very practical because two universities set out acceptable and favorable policies such as tuition waive, provision of accommodation, acceptance of credits and provision of local living expenses etc.

-Promotion of international exchange through adequate treatment will allow Mongolian universities/colleges to market themselves, supplement their resources and revenue and strengthen academic, human and physical capacities.

There are a number of international exchange programmes such as Erasmus (EU), AIEJ (Japan) and UMAP (University Mobility in Asia and the Pacific). Currently, Mongolian universities that have joined international exchange institutions or made bilateral cooperation agreements have no support from the Government, and cannot provide any living expenses to foreign students.

Actions to be undertaken

- Action 1: Review current legal acts and procedures concerning current system;
- Action 2: Study feasibility of establishing the system legally, administratively and financially (consult with universities, create a database of universities/colleges that exchange students/faculty);
- Action 3: Propose/change current system;
- Action 4: Reflect in 2003 Budget of the MOSEC.

Alternative 3. Introduce other possible Government treatments

1. Identify and support a group of state universities (not colleges) that constitutes a core higher education system and meets essential national, social and political goals. Core university policy is widely used in various countries including developed and developing. Russia has adopted a Special law on Lomonosov State University. South Korea prioritises national universities. China has 33 core universities included in so-called “211” project.

Actions to be undertaken

- Action 1: For the implementation of “core university” policy, the creation of policy-supportive environment is very important. Thus, the immediate action of the MOSEC should be amendments to the Education Law and Higher Education Law or initiate “Special Law on Core Universities”. The Education Law will be discussed at the first spring session of the Parliament in April 2002. The MOSEC should add “definition of core universities” in the Law admitting them to be under special treatments of the Government.
- Action 2: Second step is that the MOSEC must find ways to treat core universities:
- A guarantee for land ownership of universities/colleges to create conditions for building university campus and for profit use (check articles of new Land Law that will be discussed at spring Parliament session, negotiation with appropriate Government agencies: Ministry of Environment and Nature, Land Authority and Ministry of Justice)

- Give state buildings to universities free of charge through “call for proposals among core universities” or other means (negotiation with State Property Agency);
 - Treat core universities through international loans and projects. Currently, all projects to be funded by WB, ADB and other AIDs are reviewed by the MOFE. The Government should give priorities to projects initiated by core universities based on development plan of the University for coming years.
2. The MOSEC must review the feasibility of granting state universities/colleges a right to dispose some types of fixed and current properties without permission from the State Property Agency and use the income from sale for other purposes. (Currently, universities give 50% of earning from sale of properties to State Property Agencies).
 3. Important legal review is the feasibility of establishing a company at state universities and colleges in compliance with the current Company Law of Mongolia. In case of difficulties, the MOSEC should act and initiate Special law on University-based company or push Ministry of Justice to initiate “Non-profit Company law”.

Actions to be undertaken

- Action 1: Study feasibility of establishing company at universities in accordance with Education and Higher Education Law jointly with Ministry of Justice, State Property Committee and Tax Authority. If they lack money and expertise, propose within the current ADP project “Education Sector Development-Phase 2”.
4. At least the MOSEC should take a policy-supportive action by giving priorities to university-based consulting units and other service centers (printing shop etc) in contracting out services such as publication of secondary school textbooks, education sector financial auditing etc. This can be solved at the discretion of the MOSEC without negotiation with other Government agencies. Only Minister’s decree and the MOSEC procedure are needed.

REFERENCES

- (2000). *Action Programme of the Government of Mongolia*
- Bernadette Robinson. (1995) *Mongolia in Transition: A Role for Distance Education. Open Learning.*
- B.Erdenesuren. (2001).*Education in Mongolia*. Consultative Meeting of the World Bank and Donors.
- B.Ganbat. (1994). Financing of Higher Education: New Types of Funding. *Higher Education Reform of Mongolia*. Ulaanbaatar: NUM Printing House
- Central State Budget of Mongolia for 2001*. Ministry of Finance and Economics, Mongolia.
- Cermakova, Zdena; Holda, Dalibor; et al. (1994). Changes in Funding of Higher Education in the Czech Republic. *European Journal of Education*. 1, Issue 1.
- Council of Europe. “*Higher Education Financing in a Changing Environment Balancing Autonomy and Accountability*”, Legislative Reform Programme for Higher Education and Research.
- D. Bruce Johnstone. *Worldwide Reforms in the Financing and Management of Higher Education*.
- Government of Mongolia. (1995). Education Policy of Mongolia.
- Government of Mongolia. (2000) *Action Programme of the Government of Mongolia*.
- MOSTEC and Asian Development Bank. (1993). Higher Education. *Mongolia Education and Human Resource*.
- MOSTEC. (1995-2000). *Higher Education Law and Amendments*.
- MOSTEC. (1996). *Higher Education Policy Paper*.
- Lyall Perris. (1998). *Implementing Education Reforms in New Zealand: 1987-1997 A Case Study. The Education Reform and Management. Series Volume 1, No1*. The World Bank.
- MOSTEC. (2000) *Mongolia Education Sector Strategy 2000-2005*. Ulaanbaatar: Haan Printing Company Ltd.
- MOSTEC. (2000). *Funding of Tuition Fees and Grants to Some Students from Universities and Colleges*. State Training Fund, Ulaanbaatar
- National Statistical Office (2001) *Population and Housing Census 2000, National Results*. Ulaanbaatar: Admon
- National Statistical Office. (2001). *Population and Housing Census: Economic Activity*. Ulaanbaatar: Admon.
- National Statistical Office (2002). *Gender in Mongolia: Analysis based on 2000 Census*. Ulaanbaatar.
- Neave Guy. (1994). *Higher Education Policy An International Comparative Perspective*. International Association of Universities. Paris: Pergamon Press.

Paula L.W. Sabloff. (1999). *Higher Education in the Post-Communist Case studies of Eight Universities*. Garland Publishing Inc.

Sandra Taylor, Fazal Rizvi, Bob Lingard and Miriam Henry. (1997). *Educational Policy and the Politics of Change*. London and New York: Routledge.

(1997) *Survey on Students of Public and Private Universities and Colleges*” Ulaanbaatar: MTU Publishing Center

Symbat Dj. Rysaliev and Gulmira A.Ibraeva. (1999). *Educational Financing and Budgeting in Kyrgyzstan*. International Institute for Educational Planning. IIEP Publications.

The Task Force of Higher Education and Society. (2000). *Peril and Promise: Higher Education in Developing Countries*. The International Bank for Reconstruction and Development.

Weidman John C. (1995). Diversifying Finance of Higher Education Systems in the Third World: The Cases of Kenya and Mongolia. *Education Policy Analysis Archives, Vol 3, No5*.

Weidman John C., and Yeager John. L. (1999). *Mongolian Higher Education in Transition*. International Higher Education.

Weidman, John C. (1994). Finance Structures of Higher Education in Comparative Asian Perspective. *Higher Education Reform of Mongolia*. Ulaanbaatar: NUM Printing House

Williams, Ross. (1998). Funding Australian Universities. *Australian Economic Review*. Issue 2.

APPENDICES

Extracts from applicable government laws and programmes

I. Education Policy of the Government: 1995

The Government of Mongolia adopted education policy in 1995 based on the assumption that education is the foundation of national wealth and guarantee for national sovereignty, independence and security. The Government considered a number of important issues related to higher education sector and its financing:

A. In guaranteeing citizens' rights for education

- Education will be under the government support, coordination and public control;
- There shall be no discrimination of citizens in access to education by national and social origin, status, race, wealth and religion.
- The Government is responsible for definition of primary, secondary and higher educational institutions, implementation of these standards in all kinds of educational institutions regardless of types of ownership, and creation of mechanisms for evaluation and accreditation;
- Government shall provide normal and sustainable conditions and environment for educational activities, increase teacher prestige and evaluate their work;
- Government shall provide a complete integrated educational system, encourage different alternatives of acquiring and delivering education; and
- There should be equal requirements and support to educational institutions regardless of types of ownership.

B. In guaranteeing financing of higher education

- Educational establishments can be based on all types of ownership and be non-profit institutions. State educational institutions shall operate on state financing support, whereas other types of educational institutions-on appropriate support from the Government;
- Educational institutions shall be financed from state budget on standard cost-accounting basis which differs depending on specifications and professional orientation;
- The lowest rate of costs for particular profession in higher education shall be determined by the Government;
- In estimating the government budget for education, inflation and exchange rate will be taken into account.
- Teachers and students shall be offered assistance, reimbursements, social security benefits, awards and incentives;
- It is encouraged to create flexible mechanisms of financing, credit and tax, establish central and local funds, offer tax alleviations to donors and benefactors;
- Direct Government social assistance will be provided to increase financial assistance to students and alleviate their travel and accommodation expenses;
- Educational institutions shall save budget and increase efficiency;

- The Government will encourage equal access to education, student talent and skills and provide government assistance for disabled, orphans and economically disadvantaged students.

C. In guaranteeing education management

- Establish external accreditation institution with public representatives;
- Monitor education standard implementation and its results at all levels of educational institutions, raise professional evaluators' rights, responsibilities;
- Establish and develop education information sub networks, prepare educational managers and researchers, improve their qualifications and specializations;
- Improve integration of higher education with science, technology and fully utilize intellectual, labour, financial and capital capacities;
- According to their missions and objectives, higher education institutions can be established as training-research; training-research-production; and research oriented institution.
- Expand educational research.

II Education Law of Mongolia: 1995

The education law of Mongolia was adopted to regulate relations of citizens to acquire education, determine education system, its basic principles, contents, rights and obligations of stakeholders in education. To briefly state, the Government policy on education is to make education as PRIORITY SECTOR under its financing support, coordination and control. The law guarantees citizens of Mongolia to acquire education free of charge or with fee. Alongside with detailed contents on levels of education, education contents, standards, rights and duties of stakeholders, major impetus is given to types of ownership, management and financing of education.

A. Ownership

The Law accepts that the state-owned institutions operate on non-profit basis, whereas non-state ones may operate either on non-profit or profit basis. Profit educational institutions shall register at State Taxation Authority of Mongolia.

B. Management System

Educational Management System according to the law comprises of Central Government Agency for Education (Ministry of Science, Technology, Education and Culture), Local Governing Bodies and Administrators of Educational Institution. Central Agency for Education shall exercise the following power:

- To develop and ensure implementation of education related laws and regulations;
- To work out comprehensive policy on education;
- To facilitate administrative and professional support in providing formal and non-formal training;
- To provide training for administrators and teachers;
- To enhance provision of technical facilities, equipment, learning materials, books and textbooks;
- To strengthen the principles, regulations and norms guiding the educational planning, information and finance to meet the demands of a market economy;

- To establish and dissolve state owned universities, colleges and technical and vocational schools;
 - To support non-state educational institutions;
 - To approve presidents/chancellors/directors of state owned universities/colleges based on the decision of Governing Board;
 - To provide provincial/city educational centers with professional and management advice.
- C. University administration and management
- According to the law, the universities shall have Governing Boards that have power to appoint president/chancellor/director of university/college, approve institution's strategic plan and policy, statute, procedures, establish organizational structure, restructuring, staff number and salary rate, approve distribution of investment, budget and expenditure, and grant university awards and honorary titles.
- D. Financing
- The budget of educational institution is approved by State Ikh Khural (Parliament). No less than 20% of Government budget must be allocated to education. Alongside with state budget, the law diversifies sources of funding:
- Investment;
 - Tuition fee;
 - Donations;
 - Loan; and
 - Income from entrepreneurial activities.

Institutions are allowed to run business activities for profit in order to enhance their financial capacities and in this case, the government budget is not decreased respectively. Spending of profit from entrepreneurial activities are at the discretion of respective institution. The law states that fixed costs of state universities/colleges will be financed from state budget. Interesting finding is that the same Law determined fewer sources of financing for state university/college compared to the above-mentioned alternative sources: state budget, tuition fee, project implementation and business activities (loan and sponsorship are missed). Non-state educational institutions are funded from tuition fee, income from business activities and loan. The government support for non-state institutions are in the forms of providing teaching resources and improving training facilities.

III. Higher Education Law 1995 (amended in 1998, 1999 and 2000)

Higher education law is a part of education law package adopted in 1995. However, it has been amended three times. Of major importance for this research represent articles related to university authority and financing. Universities/colleges are authorized:

To work out and implement institutional development policy and programmes;
 Set up education contents and methods, development plan and programme for research and select appropriate way of implementation;

- Develop and implement projects;
- Establish institution's administrative board;

- Structure and restructure institution;
- Maintain enrolment and graduation of students in accordance with laws;
- Train lecturers and enhance their professional skills;
- Award degrees, university honorary titles etc;
- Organise national and international conferences, workshops and meetings;
- Run business activities and service; and
- Make agreements and contracts with local and foreign educational and scientific institutions, other entities, join international associations, societies and councils.

University/college funding sources consist of:

- Government budget;
- Research project;
- Tuition fee;
- Revenue from own activities;
- Donations;
- Loans; and
- Other sources.

Any donations to educational institutions must be solely used for intended purposes and reported in financial statements. The Law specifies that the Government will allocate budget for training of specialists overseas and provide assistance to private institutions in the forms of physical facilities and teaching staff. Alongside with this, lecturers of universities are eligible to gain financial benefits from out-of-university professional activities such as professional consultation, teaching and other service.

IV Higher Education Policy Paper, 1996

The policy paper empowered continuation of academic programme reform, complete introduction of credit hour system, upgrading teaching and learning methods, accreditation and staff development. Along with the above, differential costs for by course and specialization were determined.

V Action programme of the Government of Mongolia, 2000

The Government of Mongolia, formed as a result of third democratic Parliamentary election in 2000, has defined its Action Programme based on the election programme of the Mongolian People's Republic of Mongolia (MPRP). Key objectives of the programme are to continue and further economic reform and growth, respect and preserve education and culture, promote human factor as the keystone of the national development, improve living standard of people and effectively implement social and economic policy. The policy of the Government on education is based on social values determined in the Constitution of Mongolia such as equal opportunity and access to education, on meeting individual's interests and needs of labour market. The following strategies are identified in the document:

- The key objectives of the social sector lie in the creation of an environment for human development, improving living standard of citizens, ensuring an equal access to social services, and reducing unemployment and poverty;

- An environment which provides people with equal opportunity and access to education shall be created; the system of basic education and all types of professional training shall be developed in compliance with individual's needs, needs of society and the market force; and a system that provides with modern education shall be established.
- To respect and reserve education and culture, and promote human factor- a keystone of development;
- To increase investment and capital repair in the education sector;
- To support and encourage private investment in the education sector;
- To redesign education content in order to prepare young generation for the future life and work and to teach them traditional as well as modern production technologies; enforce educational environment standards; and adopt the quality evaluation system;
- Redesign the education content and enforce educational environment standards;
- Effectively conduct informal and distance education;
- Renew training and retraining system of teacher and education management staff;
- Upgrade professional training;
- To renew training and retraining system of teacher and educational management staff; to upgrade and intensify professional training; and
- To improve textbook writings, publications and distribution systems.

In the higher education, the primary strategies are focused on the following:

- Actively seek possibilities for mutual acceptance of educational documents by domestic and foreign schools;
- Review regulations on accreditation of professional schools and higher education institutions;
- Welcome branches of colleges and universities of development countries in Mongolia and support with tuition to students of such institutions;
- Resolve issues of providing grants and awards to talented and academically brilliant students of domestic universities and colleges;
- Grant scholarships to students from poor and herdsmen's families and students from families with more than two children attending higher education institutions;
- Take measures to ensure that domestic university and college students receive the benefits and allowances and support out-of-class working;
- To grant scholarships to domestic universities and college students receive the same benefits and allowances in accordance with the international practice, and support students to improve their lives by working during non-class hours; and
- To increase the number of Master and PhD students in developed countries, set up the requirements to learn and use internationally accepted languages as a door to the latest information and new technology.

VI The Budget Laws of Mongolia

The education sector budget is regulated by:

- The Mongolian Budget Law;

- “General procedure for planning revenues and expenditure of state budget organizations” the Resolution of the National Development Board, Ministry of Finance, dated 1 July 1995;
- “Budget financing procedure”, Decree No14 of the Minister for Finance, dated 1 November 1997; and
- “The Procedure for assessing the budget expenditure spending”, the Government Resolution No106 from 1998.

The state consolidated budget is divided into two parts, the state central budget and the local government budget. The state central budget guarantees funding for higher education institutions, some technical and vocational training schools, the state training fund and for centralized measures. The centralized measures for Higher education include:

- Travel fairs for students from remote areas;
- Stipends and tuition fee allowances (state training fund); and
- Support for students studying abroad.

The local government budget finances preschools, primary and secondary schools, some technical and vocational training schools.

VII Methods Used for Budget Estimation

To develop budget and determine tuition fee, universities/colleges have to consider the following costs:

- 1 Direct costs related to instruction;
- 2 Administrative costs;
- 3 Utilisation costs;
- 4 Student service costs;
- 5 Research costs; and
- 6 University development costs.

1. Direct costs related to instruction include (100% funded from tuition fee)

- Salaries of lecturers and related taxes
- Salaries of support staff and related taxes
- Costs of textbooks and subscriptions to journals
- Supplies
- Costs of professional training and retraining
- Other costs related to training of students

2. Administrative costs include (100% funded by tuition fee)

- Salaries of administrative staff and other service staff
- Communication costs
- Correspondence costs

- Transportation and fuel costs
 - Business travel costs
 - International affairs and relations
 - Costs related to centralized activities
 - Membership fee
 - Other administrative costs
3. Utilisation costs include:
- Electricity (state budget)
 - Heating (state budget)
 - Water supply (state budget)
 - Annual repair and maintenance (tuition fee)
4. Student service costs
- Student research (service fee)
 - Student sports, cultural and entertainment activities (service fee)
 - Other student service costs
5. Research costs (National Foundation for Sciences and Technology and other non-governmental funding sources)
6. University development costs include:
- Depreciation costs of fixed assets: purchase of new equipment and fixed assets (tuition fee)
 - Costs for capital repair and maintenance (state budget, if planned in the respective year)
 - New investment costs (tuition fee)

SOME QUANTITATIVE DATA

Table 1. Economic Indicators

Indicators	1996	1997	1998	1999
GDP (million USD)	1051.4	956.1	1038.0	992.7
Annual inflation rate, % (1995=100)	44.6	20.5	6.0	10.0
Unemployment, thousand (end of the year)	55.4	63.7	49.8	39.8
Export, million USD	424.3	568.5	462.3	431.5
Import, million USD	510.8	503.4	582.4	471.4
Government deficit, billion Tugrug (at current prices)	48.4	63.4	102.1	85
Official exchange rate, 1USD=Tugrug (end of the year)	693.5	813.2	902.0	1072.4

Table 2. Projections of enrolment 2000-2005

Years	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005
Upper secondary	6226	8399 0.34% increase	9292 0.1% increase	9915/ 0.06	11789 0.18
Other	6226	6719	6504	6940	8252
Total	12452	15118	15796	16885	20041

Source: Mongolia: Education sector strategy 2000-2005, p 42

Table 3. New entrants by gender 1997-1998 and 1998-1999

Level of education	1997-1998				1998-1999			
	Public		Private		Public		Private	
	Total	% Female	Total	% Female	Total	% Female	Total	% Female
Diploma	1566	77.1	151	41.7	1284	63.5	201	51.2
Bachelor	9303	66.3	5551	70.4	14057	58.6	8547	68.4
Postgraduate (Master and Ph.D)	851	62.2	5	80.0	724	67.0	9	77.8

Source: MOSEC, 1999

Table 4. Enrollment by gender 1997-1998 and 1998-1999

Level of education	1997-1998				1998-1999			
	Public		Private		Public		Private	
Type of higher education institutions								
Total No of students and % of female students	Total	% Female	Total	% Female	Total	% Female	Total	% Female
Diploma	4011	77.9	415	27	3764	71.4	330	53.9
Bachelor	31218	66.5	13646	71.5	40696	61.9	18748	70.4
Postgraduate (Master and Ph.D)	1657	61.9	14	85.7	1725	64.1	9	77.8

Source: MOSEC, 1999

Table 5. New entrants by gender 1997-1998 and 1998-1999

Level of education	1997-1998				1998-1999			
	Public		Private		Public		Private	
Type of higher education institutions								
Total No of students and % of female students	Total	% Female	Total	% Female	Total	% Female	Total	% Female
Diploma	1566	77.1	151	41.7	1284	63.5	201	51.2
Bachelor	9303	66.3	5551	70.4	14057	58.6	8547	68.4
Postgraduate (Master and Ph.D)	851	62.2	5	80.0	724	67.0	9	77.8

Source: MOSEC, Education sector strategy 2000-2005, Ulaanbaatar, 1999

Table 6. Trends in financing education (millions of tugrics)

	2000	2001 budget	2002	2003
Total state budget on education	77,096.8	87,073.0	86,140.8	86,512.1
State central budget on education	23,525.2	25,743.3	23,599.9	23,936.4
% in GDP	7,2	7,1	6,2	5,6

Source: Ministry of Finance and Economics, 2000 Draft budget of Mongolia.

Table7. Revenues and Expenditures of the NUM 1993-2001

Years	1993	1994	1995	1996	1997	1998	1999	2000
REVENUES	160,7	292,0	608,1	782,7	1663,0	2125,6	2213,5	2716,2
Gov. budget	106,7	185,0	289,0	242,5	300,0	176,3	31,4	260,8
Tuition fee	37,46	58,5	227,6	469,1	1181,9	1819,4	2053,5	2321,2
Capital investment	2,0	-	5,3	-	-	-	-	-
Others	16,5	46,5	91,5	65,8	176,2	129,9	128,6	134,1
Tuition as a % of total budget	23.3	20.0	37.4	59.9	71.1	85.6	92.8	85.5
EXPENDITURES	160,6	292,0	588,4	709,5	1621,3	1809,1	2127,4	2547,8
Salary	53,6	142,6	261,0	317,5	411,2	712,6	870,3	1033,8
Student stipends	17,7	35,4	24,3	21,0	31,6	10,5	19,9	19,6
Fixed costs	35,1	79,1	105,2	76,4	135,7	199,7	208,5	277,5
Instruction costs	4,78	7,57	29,6	28,9	53,5	43,2	73,5	74,6
Facilities and maintenance	4,88	11,57	25,3	55,9	20,5	172,1	105,7	257,5
Others	44,5	15,7	142,9	209,8	868,8	671,0	849,5	884,8

Source: Financial reports of the National University of Mongolia

Table 7. The Number of Students in State & Private Higher Education 1995-2001

	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001
State universities & colleges	29	29	29	33	43	43
Private colleges	41	51	57	71		118

Source: MOSEC Reports

Table 8. Investment by the NUM
1996-2000 (millions of tugrics)

Investment by NUM	1996-1997	1997-1998	1998-1999	1999-2000
Repair and maintenance	61.3	95.6	114	132.5
Training facilities/ equipment	64.7	93.4	95.9	156.1
Textbooks/reference materials	24.1	23.0	36.7	39.6

Source: Department of Finance, National University of Mongolia, Financial Reports