



БОЛОВСРОЛ,
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ШИНЖЛЭХ УХААНЫ ЯАМ



Mongolia: Higher Education Reform Project

ADB Project No. 43007-023

Project Code: HERP MON Loan No. 2766

Consulting Services for Higher Education Reform

GUIDELINES FOR FINANCIAL MANAGEMENT OF HIGHER EDUCATION INSTITUTIONS (HEIs)

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**June 2016
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ABBREVIATIONS

EMIS	education management information system
FMIS	financial management information systems
HE	higher education
HERP	Higher Education Reform Project
HEI	higher education institutions
EMIS	education management information system
MECS	Ministry of Education, Culture and Science
RBPB	results-based planning and budgeting
M&E	monitoring and evaluation
PPP	private public partnership

Glossary of Results-based Planning and Budgeting Terms

Activity	Action taken to transform resources (inputs) into outputs
Effectiveness	Extent to which results are achieved
Efficiency	How well inputs are converted to outputs
End-user/client	The recipient or beneficiary of an output or result.
Evaluation	Determination of the relevance, effectiveness and impact of the outputs, projects, subprograms or programs in light of the objectives and expected results.
Inputs	Personnel and other resources necessary for producing outputs and achieving results.
Monitoring	Tracking and determining the actual delivery of an output in comparison with the commitments as reflected in the program budget.
Objective	An overall desired achievement, involving a process of change and aimed at meeting certain needs of identified end-users/clients within a given period of time. Objectives can be met through reaching certain results.
Output	Final product or service delivered by a (sub)program to end-users/clients.
Results indicator	A feature or characteristic used to measure whether the results have been achieved.

Results or expected Desired outcomes involving benefits to end-users/clients, results expressed as a quantitative standard, value or rate. Results are the direct consequence or effect of the generation of outputs, leading to the fulfilment of a certain objective.

Results-based planning and budgeting

Program budget process in which (a) program formulation revolves around a set of predefined objectives and expected results, (b) expected results justify the resource requirements which are derived from and linked to outputs required to achieve such results and (c) in which actual performance in achieving results is measured by objective performance indicators.

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I. INTRODUCTION

1. The purpose of this guideline is to help higher education institutions (HEIs) manage its financial resources. HEIs are increasingly operating in a rapidly changing and competitive environment. In order to survive this challenging environment, you will need to ensure the best and most efficient use of your financial resources. Sound financial management will provide board members and managers in your organization with a basis on which to do this. It is only a guide, providing sample manual content and policies. Each organization is unique based on size and structure and would need to develop specific content to suit their environments.

2. Underpinning all financial management systems is a series of financial policies and procedures which guide operations and lay out how HEIs use and manages its money. A financial procedures guideline brings all these together in one document. It helps to establish financial controls within the organization that ensure accuracy, timeliness and completeness of financial data. The guideline is generally used by finance staff, but it can also act as a reference for board members, managers and other staff.

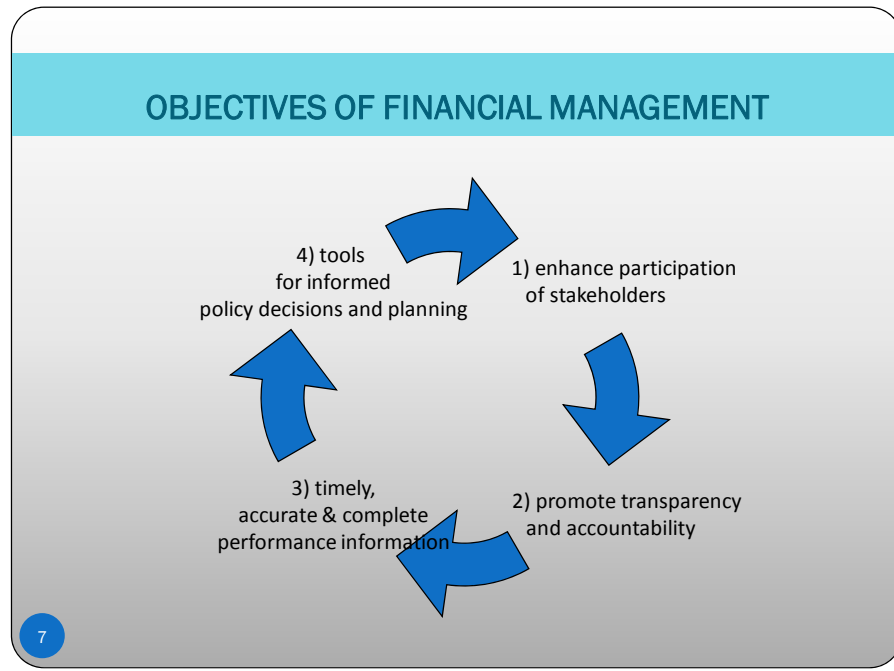
A. What is Financial Management?

3. Financial management is more than keeping accounting records. It is an essential part of organisational management and cannot be seen as a separate task to be left to finance staff or the honorary treasurer. Financial management involves planning, organising, controlling and monitoring financial resources in order to achieve organisational objectives and involves a range of financial tactics. Financial Management comprises --Planning, Budgeting, Monitoring, Auditing, Disbursement Accounting, Funds Flow, and Procurement.

4. HEIs can only achieve effective financial management if the institution has a sound organisational plan. A plan in this context means having set objectives and having agreed, developed and evaluated the policies, strategies, tactics and actions to achieve these objectives. Sound financial management will involve long-term strategic planning, and short-term operations planning. This financial planning should become part of the HEI's ongoing planning process.

5. Sound financial management is one of the most important policy development and monitoring areas of a board of directors. Financial policy is developed to reflect these different roles and responsibilities. Good financial management will help HEIs to: (i) make effective and efficient use of resources; (ii) achieve objectives and fulfil commitments to stakeholders; (iii) become more accountable to donors, funders and other stakeholders; (iv) gain the respect and confidence of funding agencies, partners and beneficiaries; (v) gain advantage in competition for increasingly scarce resources; (vi) prepare for long-term financial sustainability; and (vii) diversify income and manage risk. Good financial management has four important components: (i) a clear finance strategy; (ii) a plan for generating income; (iii) a robust financial management system; and (iv) a suitable internal environment. Figure 1 presents the objectives of financial management.

Figure 1: Financial Management Objectives



B. Finance Strategy Policies

6. How to develop a finance strategy for the HEI should be the central focal points of management. Finance strategy is a plan of how the HEI will finance its organization and its activities, what money is needed and where it will come from. The strategy should describe how the HEI intends to move from its current position to its intended position.

C. Budgeting

7. HEI responsibilities cover many areas of operation, one of which is planning and budgeting. Part of approving a plan and budget means asking sufficient questions so that the budget is understood.

8. *Generating Income.* Generating income is more than fundraising. It is about making the HEI sustainable by establishing a range of funding (diversifying your sources of income), so that it is not dependent on one source. The income generation plan must ensure that: (i) sufficient levels of income is raised to enable the HEI to deliver its purpose; it must cover all costs incurred; (ii) taken into account any restrictions imposed by funders on how the HEI can apply the funds received; and (iii) have sufficiently diverse source of income to avoid the high level of risk.

9. *Sustainability and Diversification.* A good plan for generating income will aim to achieve sustainability by stabilizing the HEI's funding base. Sustainability ideally

means managing the HEI's income streams in such a way that if or when one stream comes to an end, the work can be repositioned, making it suitable for funding by another stream. Opportunities available to diversify income streams range from donations and grants to service level agreements or contracts to deliver services, to trading in goods and services.

D. Policies Checklist

10. Policies and procedures should start with the HEIs' financial responsibilities and its governance model/style. The following areas are some of those that would benefit from written policies and be included in a financial management guidelines: (i) board members/management financial responsibilities, (ii) controls on expenditure- who can spend what and with whose authority, (iii) controls on income, (iv) controls on financial accounting - for example, who records cheques received and who banks them; (v) exercising budgetary control - who can spend how much and on what and what expenditure needs special permission, (vi) controls on human resources - who can recruit and for what roles, what permissions are needed and who authorizes pay grades/scales, and (vi) controls on physical assets - for example, who can authorize the sale, purchase and lease of buildings or equipment.

E. Review Requirements

11. At a minimum, it is essential for HEIs to have the following financial reporting review requirements:

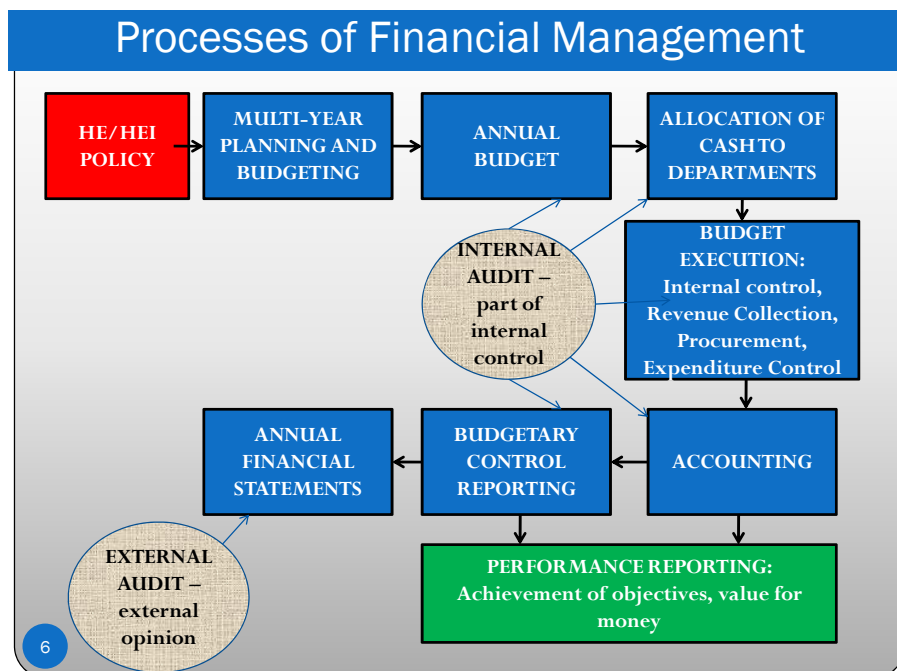
- *Financial Statements:* HEIs should prepare monthly, quarterly and annual financial statements, including a Variance Report (actuals versus budget) and statements and reports. Statements should be distributed to the Board of Directors/senior management on a monthly, quarterly or annual basis. (Balance Sheet, Income Statement and Cash Flow Statements should be minimum requirement)
- *Variance Reports:* HEIs should prepare quarterly variance reports for the Board of Directors that explains any significant variances in expenditures and revenue compared to budget in each line item.
- *Financial Ratio Reports:* The HEI finance unit should prepare quarterly financial ratio reports for its Board of Directors or senior management that explains any significant variances from previous years' quarters.
- *Investments:* The financial officer/treasurer should review the performance of all investments, and will report findings to the board or senior management at least once a year.
- *Policies:* It is the expectation that the Board of Directors or senior management of HEIs will review these policies annually.

F. Scope of the Guidelines for Financial Management of HEIs

12. This financial management guideline focuses on results based planning and budgeting (RBPB), to supplement the stand-alone accounting and costing manuals and resource mobilization guidelines prepared for HEIs. This guideline is expected to assist planning and budgeting officers and relevant staff of HEIs in formulating plans and budget proposals in a results-based format. Its primary aim is to provide step-by-step guidance and to serve as a reference in the implementation of financial management at HEIs.

13. This guideline is divided into three parts. The first part provides a brief introduction to the concept of RBPB, the conceptual framework, and rationale for the adoption of RBPB. Part II deals with the general aspects and requirements of results-based plan and budget formulation. Since this presents detailed instructions, which should enable HEI managers to prepare a results- based plan and budgets, using a logical model or framework that links a subprogram’s objectives, expected results, outputs and resource requirements in one congruous whole. The third and last part focuses on RBPB performance measurement, being an evaluation of the progress made in achieving expected results based on so-called performance indicators.

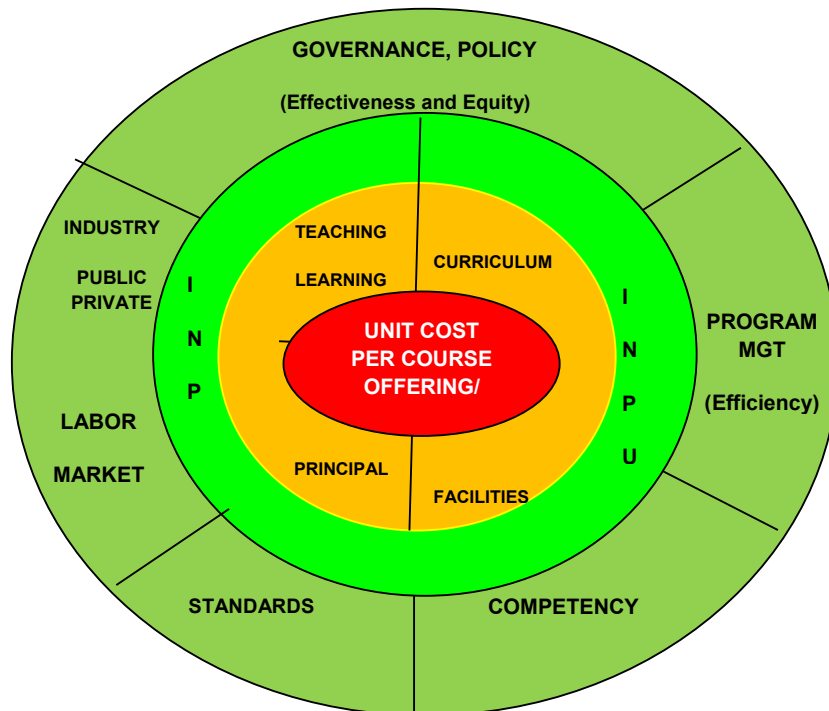
Figure 2: Scope of Financial Management Systems



II. Conceptual Framework of Results-Based Planning and Budgeting

14. The choice of HEI funding mechanisms has leverage on the achievement of national development objectives (Effectiveness), on outputs per unit costs (Efficiency) and on the degree to which students from different background have access to good quality higher education (Equity). Higher education (HE) financing mechanisms it is important to differentiate the following different components: sources of funding, decision-making authorities, rules and procedures for budgeting and disbursement, and the financial and performance accountability system. In order for a RBPB to work, it requires reliable funding sources, transparent disbursement mechanisms and fair funding rates for different types of courses, a high degree of management autonomy for HEIs, standard-based quality assurance, and transparent accountability mechanisms. This requires the different stakeholders to acquire new knowledge and capabilities: funding agents need to be able to use the flexibility to achieve objectives and priorities. HE providers need to be able to cope with increased complexity in funding, management and accounting; funding agents and providers need to be able to assess and negotiate fair funding rates and accountability mechanisms. Figure 3 presents the conceptual framework of RBPB.

Figure 3: HEI Results Based Planning and Budgeting



15. The conceptual framework for the proposed RBPB system requires the development of cost-based funding formula for total budget preparation by HEIs.

The system of financing the HEIs should reflect fulfillment of student demand, equity of access, and program considerations, as well as greater accountability and efficiency. Student places in course offerings will thus be funded based on priority sectors, which drive the actual allocations. RBPB is based on the concept that it is integrated with strategic planning, program management, and monitoring. As the initial step, strategic plans and budgets are prepared taking into account all relevant factors (government policy, laws, M&E, labor market). Foremost to this, a demand-focus is key to increased employability and competitiveness of graduates. There should be a recognition of priorities in funding courses by the HEIs. RBPB should consider the larger perspective of the relevance of a HEI's course offering to the needs of business and industry. Mobilizing resources beyond government appropriations, including private public partnerships (PPPs), allows for institutional advancement.

16. Long term strategic plans are prepared on a rollover basis, which are to be updated annually. The strategic plans will contain programs and activities which have clearly identifiable aims, which can be budgeted, accounted for, and monitored. Such information will serve as inputs to development of standards and norms for use in further planning and budgeting, as well as serve as inputs to evidence-based policy making. The budgets and plans need to be tied to achievement of performance to and adherence to quality standards (accreditation, student assessment/certification, quality framework) is the basis by which the budgeting framework is built on. Key results indicators need to be established, which ideally should be market-led outcomes. The selection of results or performance measures and should be outcome indicators, rather than input, and quality rather the quantity indicators. Standard unit costs based on quality standards will be core of the RBPB system. The use of standard costs of each course offering will assist in the equitable allocation of resources.

17. The unit cost standards per student by course offering (developed in the costing manual) being offered at HEIs will be applied to the budgets the will result from the strategic plans. Common costing methodology and RBPB is expected to be institutionalized at HEIs. The costing methodology calculates course offerings using HE standards. These pre-determined standards contain inputs levels (inner layer in Figure 3) relates to teaching learning processes, principal and teacher development, facilities and equipment upgrading, and curriculum improvement. At the outer layer of the figure are the outcome indicators related to quality (e.g. quality standards/TQM), relevance (labor market and public private partnerships), equity and effectiveness (related to policy, pro-poor strategies), and efficiency in program management.

18. Emphasis should pertain to institutional performance for determining level of subsidy. Performance management necessitates the empowerment of HEI principals to implement their long-range strategic plans, supported by opportunities for the recognition of results or performance incentive system. Institutional development of HEIs is essential to RBPB, which pertain to structure and systems strengthening. This will entail organization review and institutional linkages of HE, accounting and financial management systems improvement, capacity building of management staff,

organizational review of HEIs. Clear-cut government policy on regulation of PPPs (market linkages), entrepreneurship/income generating activities should help improve the quality and relevance of HE. Direct channeling of resources to HEIs based on pre-approved 3-year plans. Human resources development plans for HEIs and managers of the HE system should be implemented, including academic staff quality improvement. Effective monitoring and evaluation of performance through an effective education management information system (EMIS) at the Ministry of Education, Culture and Science (MECS) and HEIs.

19. RBPB hinges on the documentation of the costs of selected programs or course offerings. In essence, RBPB will not merely reflect the amount of teaching hours, but must internalize all additional resources invested into increasing teaching quality, such as qualified instructors (including their time spent on class preparation, increasing their own skills and knowledge, etc.), and overheads (management and capital costs). One important indicator is satisfaction and employability of students. Funding rates (based on standard costs) will be applied to courses meeting quality assurance, certification, and other performance standards. RBPB creates a base for measurement criteria for funding (registration and accreditation standards). Quality considerations are essential to RBPB (performance and results). These all serve as basis for the development of unit cost standards per course offering.

20. RBPB focuses on increasingly tap into other financing sources in order to expand the quantity and quality of HE provision and recover a substantial share of recurrent costs of HEIs through more systematic income-generating activities. In Mongolia, the authorities have embarked on a policy to encourage income-generating activities in public HEIs. This policy is primarily aimed at increasing the efficient use of human and physical resources in HEIs. The resource mobilization activities at HEIs may only be charged on a cost-recovery basis and not generate profit. The introduction of RBPB and improved management capacity of institutions at all levels of the HE system augurs well with the achievement of the sector's efficiency objectives. The basic responsibility of all HEIs are to deliver quality HE courses to registered students. Therefore the total focus is on the above objective whilst all other activities are dealt with as support operations. Therefore the base for all planning should be on the courses offered.

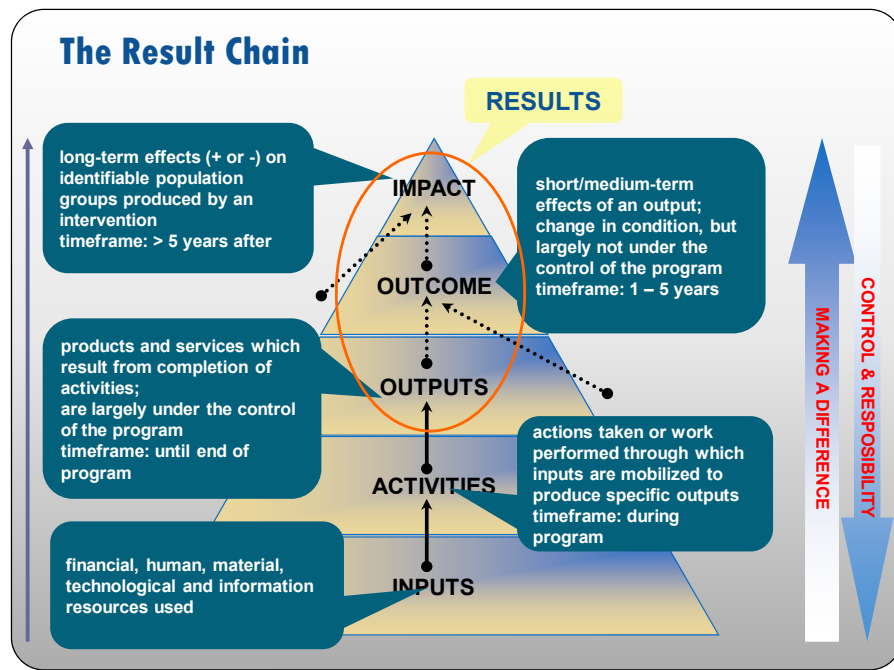
What is results-based planning and budgeting?

21. RBPB is defined as a system that links budget allocation to actual activities and specific program, the objectives of the prioritized policies of MECS and HEIs. RBPB is about formulating programs and budgets that are driven by a number of desired results which are articulated at the outset of the budgetary process. It involves calculating and proposing resource requirements on the basis of pre-determined results, rather than merely on the basis of scheduled outputs or activities. RBPB requires HEIs to identify objectives and results that involve certain changes or benefits to end-users and subsequently to measure the extent to which these changes or benefits have actually been brought about. To give the precise definition for RBPB, results- based planning and budgeting is a program budget

22. process in which (i) program formulation revolves around a set of pre-defined objectives and expected results, (ii) resource requirements are derived from and linked to such expected results and (iii) in which actual performance in achieving results is measured by objective performance indicators.

23. RBPB establishes a top-down, logical framework, using a number of strictly defined concepts, such as objectives, expected results, performance indicators and outputs. Its central tool which provides a direct link between expected results and resource requirements. Also crucial to RBPB is the measurement of performance in achieving results. Performance measurement shows whether the activities of the HEI actually make a difference. RBPB is not a new planning and budgeting methodology, but involves significant changes in the budget format by placing more demanding standards on HEI planning. By mapping the expected results in advance and by tracking to what extent these have been actually met, this budget format is also a versatile management tool. In sum, the shift from input budgets to program budgeting is directed at improving the transparency of the planning and budgetary process as well as the ability of the HEI to provide direction and to assess implementation of the budget.

Figure 4. The Results Chain



24. One of the innovative aspects of RBPB is its capacity and indeed its aim to involve staff in establishing a link between an individual's work and the progress in achieving objectives of the HE sector and HEI. In this sense, the term "results- based planning and budgeting" does not do full justice to the broad range of its intended effects: RBPB is not just about plans and budgets, but has the potential to bring about a change in strategic management, accountability and responsibilities. Therefore, this guideline also highlights the different ramifications and expected

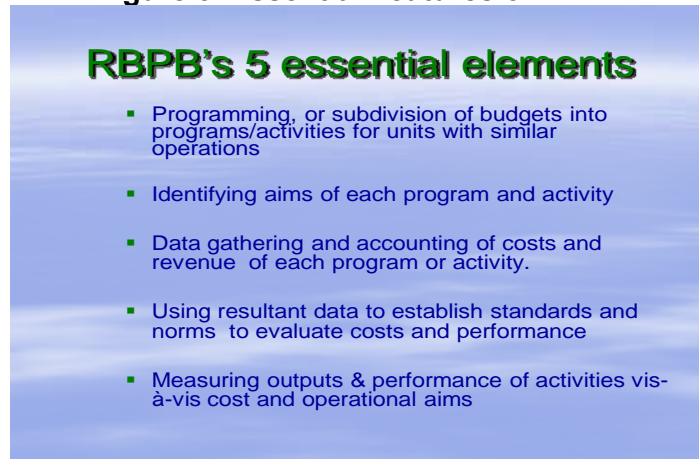
25. dividends of RBPB as they affect staff in general. From this perspective, the guideline is written for all HEI officers and staff.

26. A salient feature of RBPB is that it compels the HEI to submit itself to self-scrutiny and to compare actual accomplishments to expected results. As indicated above, its objective is twofold: in the first place, it seeks to enable HEI management and other staff to prepare program budget proposals in a format which meets all the requirements of RBPB. It also aspires to provide a clear and comprehensive guideline on RBPB for staff in general.

Why results-based planning and budgeting?

27. Program planning, budgeting, monitoring and evaluation cycle allows the HEI to track the number of inputs and outputs, showing us whether quantitative targets have been met and - at best - whether programs have been efficient in the use of resources. RBPB also serves as a strategic planning tool, improving the clarity, and consistency of programs, facilitating a common understanding and better communication among departments, managers and staff in general of the desired results of HEI. RBPB allows the HEI to attain a unified sense of purpose and direction. Moreover, through the measurement of performance in achieving defined results, RBPB provides feedback to HEIs on how well it is doing, and creates a strong incentive for adopting best practices and efficiencies in use of resources, as well as improving the quality of services and other outputs. In RBPB, the increase of the accountability and responsibility of HEI management is designed to go hand in hand with an amplified authority for managing financial and human resources. Figure 5 indicates the essential features of RBPB.

Figure 5. Essential Features of RBPB



28. Results-based planning and budgeting aims to improve the efficiency and effectiveness of public expenditure by linking the funding of public sector organizations to the results they deliver, making systematic use of performance information. There are a number of models of RBPB that use different mechanisms to link funding to results. Some have very sophisticated features and require the support of correspondingly sophisticated public management systems, while others

29. focus more on the basics. Results-based planning and budgeting should not be seen as an isolated initiative. It should be viewed, rather, as part of a set of broader reforms— as in the case of Mongolia's higher education reform program (HERP) —designed to focus HEI management more on results delivered and less on internal processes.

30. Results-based planning and budgeting rewards providers for their actual performance (Salmi, 2013), and may be input-based (e.g. per student financial rewards give incentives to increase the number of students), output-based (e.g. completion rates), or outcome-based (e.g. proportion of graduates in employment after six months). Results or performance-based financing (especially output- and outcome-based approaches), require reliable information systems, as well as greater provider capacity and autonomy. The RBPB system aims to:

- render equitable and transparent funding mechanism for HEIs;
- enhance the integrity of policies associated with decision making on budgetary allocations;
- provide leverage on the system to strongly encourage improvements in quality and efficiency;
- provide for financial autonomy of HEIs and build their capacity in financial management, including financial planning, reporting and resource mobilization; and
- provides for optimum utilization of resources.

31. RBPB requires: (i) increased motivation and incentives of employees; (ii) organizational change to increase the focus on results orientation; and (iii) institutional and oversight changes to strengthen accountability for performance. Action on these and a range of related fronts is necessary if the efficiency and effectiveness of HEIs expenditure is to be improved. Reforms in the area of governance must include key stakeholders in the strategic decision making process and in the management of HEI policies and services. It also requires the development of accountability mechanisms to ensure efficiency, relevance and quality in the delivery of HEI services. Evaluation is the key mechanism for capturing effects of interventions at the expected results level and therefore central to improving results-reporting and condition for better RBPB. These include the improvement of self-evaluation practices of programs, better quality assurance, and impact evaluation. RBPB is a system that assumes financial management information systems (FMIS) is in place, and relies primarily on results based monitoring and evaluation.

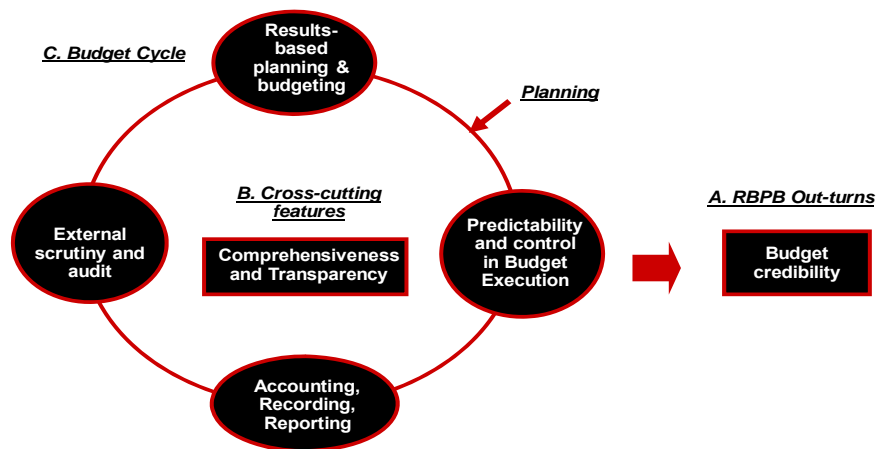
III. RBPB Framework and Methodolgy

32. **Approach and Methodology.** The general approach and methodology for the RBPB system involves the integration of planning, budgeting, implementation and monitoring. (Figure 6). All relevant factors, namely policy, laws, M&E, labor market are considered in the RBPB framework. Recognition of funding priorities will be the basis of a funding formula to be utilized by the HEI and MECS.

33. The RBPB framework and methodology entails the allocation of funds to HEIs and related institutions based on the following criteria: (i) estimated unit costs of course offerings based on quality standards , (ii) their level of priority, (iii) targeted number of students, and (iv) other relevant parameters. The general approach entails the integration of planning, budgeting, implementation and monitoring. Strategic plans are prepared on the basis of national goals, medium term budgetary framework, and MECS vision, mission and strategies. HEI strategic plans need to be prepared using performance indicators linked to quality standards (accreditation, qualifications framework). This entails development of monitoring and evaluation systems (M&E) in the various HEIs, from which management/ implementation is gauged.

Figure 6. RBPB Integration

Results Based Planning and Budgeting Integration



34. Standard costs for HEI courses includes all related elements of cost. Such costs should be benchmarked against relevant indicators in the sector and other countries as well. Performance standards based on quality outcome measures will for the key performance indicators which will be measured through appropriate M&E systems. The study involved the development of RBPB methodology, appropriate financial planning framework, identification of performance measurement standards, unit cost quantification, and application of proposed system into the budgetary framework of the HEI. The steps required to undertake full implementation is shown in Table 1.

Table 1: Steps Required to Undertake RBPB

Activity	Base Data	Responsibility	Time Frame
- Funding formula - Management tools (enterprise resource planning, variance and financial analysis)	Standard unit cost Cost Information and budgets Labor Market Information	MOF, MECS Selected HEIs	Phase 1
Standard unit cost estimation	Cost and budget data from all relevant HEIs	MECS/HEIs	Phase 1
Long-term Strategic Plans, using RBPB	RBPB System Policy, MECS plans	HEIs	Phase 2
Performance indicators (input and outcome)	MECS, HEIs	MECS, HEIs	Phase 2
Performance incentive system in RBPB	HRD and performance appraisal system	MECS, HEIs	Phases 2 and 3

35. **Database, Management and Security.** A database for each course will be developed and maintained, containing the course objectives, targeted students and entry requirements, course source requirements, delivery methods, and cost elements. Databases will also be developed and maintained by the HEI, comprising physical and resource information, courses delivered, local environment, population and predominant achievements, competitive institutions. The HEI will assume responsibility for system administration, which include: custodian and update of master files, evaluation of subject experts for inclusion of new courses, and report quarterly to management on changes and amendments.

36. **Planning and Budgeting.** Based on the aforementioned data, HEIs need to plan the courses to be conducted, subject to adherence to its vision, mission and strategic plans. Standard costs are then used to plan the budget for the year. On approval of the plan as the budget for the year, this is compared to actual expenses for assessment of the performance and regular reporting to higher management. Three-year plans will be undertaken, using activity-based costing as the basis for budgeting and financial planning. Priority courses based on MECS directives will drive the budgetary plans. Corollary to this, internal efficiencies will be addressed by the funding formula. Results/performance management criteria based on quality standards will be identified in the strategic plans to determine the three-year plans, to be updated annually. The standard costs per course offering are applied to the intended course offerings or programs to obtain budgetary requirements. Inputs, outputs and outcome indicators will be linked by means of results-based budgets

prepared according to clearly defined procedures. The procedures integrate the various course offerings (programs) and sources of funding involved.

- **Long-Term Strategic Plans and Activity Based Costing**

37. Long range strategic plans under the RBPB concept entails the use of 3 year plans and budgets on a rollover basis to be updated annually. Under a cascading methodology (Figure 7), the plans are based on overall mission, vision, strategies which are linked to overall goals and strategies of the HEI. MECS vision, goals and

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strategies also should be tied to the individual HEI plans. The plans should contain programs/activities for units with similar operations, identifying aims of each program and activity. Budgeting and accounting to show costs and revenues of each program/activity. Outputs and performance of activities should be measured vis-à-vis cost and operational aims. Using resultant data, standards and norms need to be established so as to evaluate costs and performance. Table 2 presents the application of the cascading model shown in the figure, as vision, mission, strategic goals are quantified by responsible units. Financial projections over 3 years should be undertaken, using target student intakes per course offering, and related expenditures by program or unit. Management option may entail utilizing a funding formula based on standard unit cost information for the HEI. Variance analysis and management tools should be undertaken, with management exception reporting. Proper information on indicators is identified in the process of planning, attributable to each strategic objective.

Figure 7. Cascading Planning and Budgeting Framework

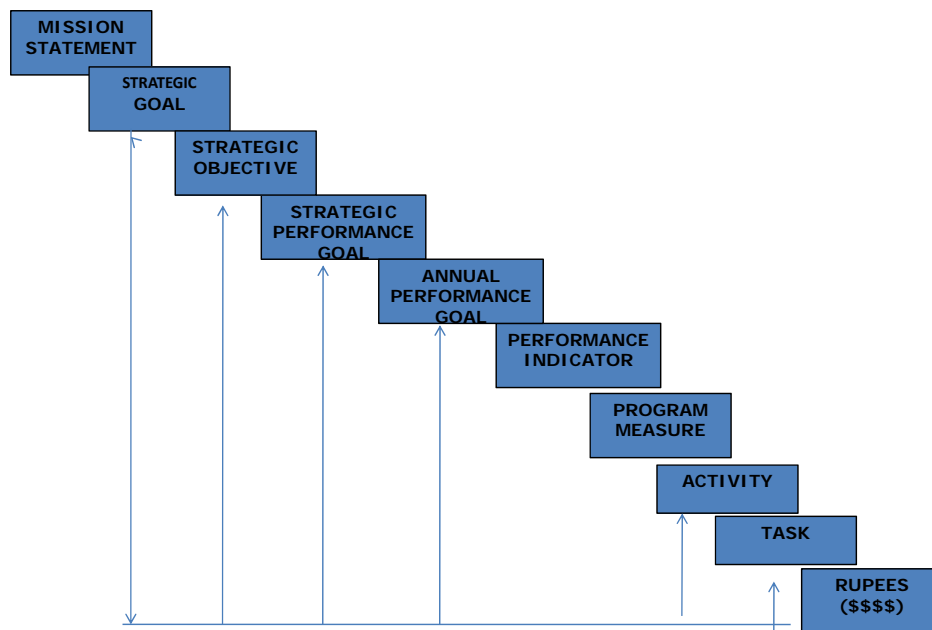


Table 2: Cost Model – Sample HEI

Program/Unit	Strategic Goal 1			Strategic Goal 2		Strategic Goal 3		Total Cost
	Obj 1.1	Obj 1.1	Obj 1.1	Obj 2.1	Obj 2.2	Obj 3.1	Obj 3.2	
Program 1, Unit A							36,850	36,850
Program 2, Unit B							3,867	3,867
Program 3, Unit C		56,550	28,950					85,500
Program 4, Unit B					15,700	29,800		45,500
Program 5				21,500				21,500
Program 5	359,700		25,000					384,700
Total	359,700	56,550	53,950	21,500	15,700	29,800	40,717	577,917

38. **Standard Unit Cost.** Standard costs are a function of performance standards and procedures for the allocation of personnel and other costs. A common methodology is applied which entails estimation of direct costs and allocation of overhead expenses. Key assumptions are utilized in the development of standard costs, which include: class size, cost absorption of instructors and demonstrators, classrooms, and laboratories/workshops. Standard costs are then developed based on direct instructor costs, cost of use workshop and classroom utilization, and allocation of overhead expenses. A funding formula needs to be developed with the standard unit cost as the base. In the funding formula, weightings can be assigned to various course offerings based on government priorities, geographic proximity, industry demands, and other factors. It is necessary that the cost-based formula be determined and negotiated by MECS, MOF, in consultation with key HEIs.

$$\text{Unit Cost} \times \text{priority factor} \times \text{geographic factor} \times \text{targeted course offering} \times 15 \text{ students} = \text{Total Budget/Course}$$

Standard Unit Cost Estimation

39. Course offerings will be calculated based on the number of students (xx per course is the standard); required academic skills, facilities and infrastructure being available; cost of supplies and services being similar at all HEIs. Only 'recurrent costs' are included whilst any capital expenditure will be included as depreciation in costs of workshops and other facilities. For each course, direct costs will consist of academic resources (number of lecture hours, number of workshop hours, number of tutorial hours, examinations related hours, teaching skill levels required for each course as a standard requirement, and average remuneration for each level to establish cost of academic inputs. The cost per hour for each category of teaching staff for lectures, laboratory supervision and tutorials should be estimated based on capacity utilization (net of weekends, vacation and leave benefits).

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Unit Costing Methodology
Development of standard cost of courses
Direct Expenses
• Instructor/Demonstrator salaries
• Cost of use of Workshops and classrooms
• Cost of Consumable materials
• Allocation of Overhead Expenses
Overhead Expenses
- Non Teaching Staff salaries
- Part-time Lecture Fees
- Vehicle/fuel Expenses
- Students' Allowances /bursaries /sponsorships
- Security; maintenance; water; etc
(cost of electricity absorbed in Class/laboratory usage rates)

40. Elements of *direct costs* consist of use of (i) physical resources, institutional cost charge out rates required to be developed for the following elements of costs (use of class rooms, workshops, library ,studios, other), on 70% utilization basis; (ii) estimated value of training materials and consumables; and variable added per student, if numbers exceed xx students¹.

41. *Fixed overhead expenses* consist of: (i) the fixed overheads to be allocated to course costs; (ii) salaries of all non-academic staff; (iii) general supplies, maintenance, services & utilities; (iv) rent; (v) welfare, retirement expenses and other expenses. A normative average requires to be developed. These expenses are to be allocated to cost of courses, on the basis of 75% of the total number of person months in each year of the planned courses.

42. *Variable overhead expenses* consist of: (i) training materials and consumables for courses with students in excess of xx a sum for each student; (ii) incremental cost of facilities if in excess of xx students.

43. **Factors Affecting Course Offerings.** The variation in the cost of programs are attributed to the following factors: nature of curricular program, demand factors

¹XX students is the standard class size of the HEIs, based on MECS guidelines.

(such as number of enrollees/graduates and quality of graduates), and cost structure (such as teaching hours/units handled at different course offerings or programs).

- *Nature of Course Offerings.* Depending on the course, industrial courses are relatively more expensive than service programs.
- *Demand Factors.* Student demand can either increase or decrease course cost while the quality of academic program is expected to increase program costs. Aside from the nature of the program, a higher per unit program cost is associated with low enrolment. Since an important component of program cost is the allocation of fixed (overhead or non-teaching) costs, a low enrolment would mean a higher share of the overhead costs.

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- *Cost Factors.* Student to faculty ratio should be analyzed and results indicate underutilization of HEI facilities. Cost studies should be undertaken in HEIs to identify costs inefficiencies of these institutions. Huge variations in student costs within the HEI may be attributed to low class sizes, and high faculty and teaching costs. Low cost per student may not necessarily result in poor quality education.

44. **Reporting.** RBPB reports will consist of planned courses, capacity utilization of resources, options to optimize, report on resource gaps, monthly, quarterly and annual plans, productivity in performance, quality assessment, cost per student, and targets to motivate the institutional management as recognition of performance.

General Concerns to be Recognized

45. The analysis of HE financing undertaken have indicated the internal inefficiencies that emanate from the existing planning and budgetary system. Unit costs of course offerings or programs should be undertaken by the HEI through application of standard costs using the RBPB approach. Hence, there is need to institutionalize the unit cost applications among the HEIs, in order to capture a sound basis for pre-determined costs based on quality standards. The essential elements to the successful application of RBPB are described as follows:

46. **Policy Implications.** To the extent possible, autonomy needs to be provided to HEIs, with appropriate incentive mechanisms and resource mobilization mechanisms in place. The role of the government should be to develop transparent guidelines on the overall purpose of income generating activities, set quality standards and quality assurance mechanisms, and establish transparent and manageable accounting mechanisms for the generation and spending of income raised by HEIs. Corollary to this, direct channeling of resources to public HEIs based on pre-approved 3-year plans to be disbursed based on achievement of key performance indicators.

47. **Essential Linkages.** RBPB can succeed with strong political backing, a rigorous program of training and advocacy, adequate information, gradual introduction of the system and complementary reforms that would encourage performance. HEI needs are satisfied through systems of service delivery. These

call for the mobilization of resources that should be managed efficiently, effectively and equitably. The functions of services and management are combined in the integrated process of planning and budgeting with the aid of a suitable EMIS.

48. ***Institutional Improvement.*** The managers of HEIs need to acquire solid business management competences. Wider budget manager responsibility and accountability will be introduced to enable them to efficiently and effectively meet program objectives. This requires the different stakeholders to acquire new knowledge and capacities. HE providers need to be able to cope with increased complexity in funding, management and accounting; and assess and negotiate fair funding rates and accountability mechanisms.

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49. Measures to optimize capacity utilization of (public) HEIs should be built among HEI accountants, managers and teachers. Systemic reforms in the financial and management systems need to be improved at HEIs, consistent with the ongoing government reforms. RBPB should effectively be linked to the MECS EMIS.

Action Plan

50. Due to current policy and financial systems in the country, there is need to have phased implementation of RBPB over a 5-year period, as follows: Initial (within 2 years), implement unit costing methodology, management tools (enterprise resource planning, financial analysis, cost accounting, general accounting), recognition of priorities in funding courses, and results monitoring; intermediate (within 3 years); develop incentive mechanisms for good performance, need for E-enabled system for RBPB; and long-term (within 5 years), provide lumpsum flow of funds tied to achievement of strategic plans, and independent resource utilization and accountability. Therefore the base for RBPB should entail the following:

- Develop performance based institutional funding system for HEIs.
- Identify measurement criteria for funding (i.e. registration and accreditation standards)
- Collaborate with from public and private sector HEIs in determining unit cost per student by type of course.
- Disseminate the accounting and cost accounting manuals and guidelines for resource mobilization and financial management
- Conduct regional workshops and training for HEIs
- Develop financial planning framework for HEIs

Phases in Implementation

51. It is proposed that RBPB be implemented in the following phases:

- Initial Phase (Within 2 Years)
 - RBPB to be installed in at 4 pilot HEIs in Ulaanbaatar and 2 HEIs in rural areas, with full support for resources and capacity building
 - Unit costing methodology developed and undertaken in the pilot HEIs
 - Management tools developed and implemented in the pilot HEIs, such as financial planning and analysis,

- Identification of performance measures and indicators based on quality (outcomes)
 - Recognition of priorities in funding courses
 - Intermediate (Within 3 Years)
 - Incentive mechanisms for good performance established and implemented at HEIs
 - E-enabled system for RBPB developed and implemented, linked to EMIS
 - Performance evaluation and monitoring system established at HEIs
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- Unit cost standards updated to include MECS/HEIs and relevant institutions
 - RPPB methodology applied to HE sector
 - Long-Term (Within 5 Years)
 - Autonomy of HEIs, in line with delegation of authority
 - Lumpsum flow of funds to HEIs tied to achievement of performance as indicated in strategic plans
 - Independent resource utilization and accountability

Monitoring and Evaluation of RBPB

52. The important part of monitoring and evaluation are: (i) Policy Objective, (ii) program and/or strategic priority, (iii) indicators and target indicators. and (iv) resources. All HEIs must monitor and evaluate the policy objectives set in the 3 year plan in order to determine the validity of the policy objectives, and identify necessary amendments or updates to policy objective for subsequent year. After review and evaluation of the strategic priorities, the HEI has to set up M&E indicators. The objectives of these indicators comprise two-steps as follows: (i) to assess the results achieved against the target indicators defined in the previous year's strategic plan; and (ii) to focus on the factors that make the indicators target change. The M&E expenditure needs to focus on factors that make cost changes, and these factors are: (i) the results of the evaluation policy objective; (ii) the results of the strategic priorities; (iii) the results of the evaluation indicators and objective indicators; (iv) the results of the implementation of the actual cost; (v) the failure of the implementation cost; (vi) failure of funding by outside partners; (vii) errors in estimates or unit price; (viii) other factors (economic growth, inflation, natural disasters, etc.).

Performance indicators

53. Performance Indicators form an integral part of RBPB because of their direct link to expected results. Choosing the right performance indicators is one of the more challenging parts of RBPB. Performance indicators are features or characteristics used to measure the progress of the program in reaching its expected results. The measured values of performance indicators determine to what extent the expected results have been achieved. For the purposes of RBPB, performance indicators will not be established to measure the number, quality, effectiveness or any other aspect of outputs, unless a change in such aspects of outputs is actually an expected result

of the program. Nevertheless, measurement of outputs will still be relevant for managerial purposes, as it may be meaningful to point to weaknesses if results have not been met (this may, for example, be due to insufficient outputs).

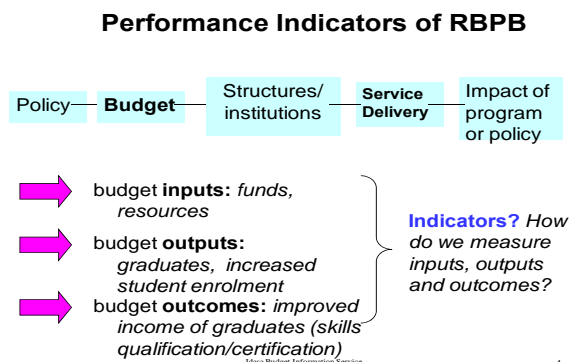
54. Performance indicators must be measurable or observable: they must reflect characteristics that are concrete. The extent to which indicators can be measurable will, of course, also depend on the formulation of the expected result. Indicators must be relevant, meaningful, valid and verifiable: they should answer the central question: what will indicate that the program has achieved its expected result? Performance indicators should provide meaningful information on the actual

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55. performance of the program relative to its expected results and should be able to measure what they claim to measure. Last but not least, performance indicators must be designed in a way that allows their measurement to be cost-effective. A reliable system for collecting the data required for performance indicators must be developed. This will require the identification of the sources where information will be taken from and the methods of collecting the data. Relevant here is that the costs associated with the method of gathering information should not be outweighed by the relevance of the information that can be obtained.

56. In many cases, sources of information may have to be identified or even created for the first time and new methods of data collection set up. The additional efforts and costs of collecting material must be weighed against the value of using the performance indicator in question: the efforts involved in measurement may be inhibitive and may require that the indicator be adapted or even rejected. Performance measurement should always be seen in the context of being a tool in providing feedback and as a basis for improving performance and should not result in the establishment of elaborate measurement processes or bureaucracies. RBPB stems from the identification of policy, program and subprogram objectives, and determining a set of hierarchical indicators as shown below:

Figure 8. Indicators for RBPB



57. *Quantitative and qualitative indicators.* Most performance indicators will be expressed in a quantitative way, that is, they will involve amounts, numbers, ratios, percentages, etc. In all these cases, measurement will yield a certain numerical

value that will be indicative of the performance of the program. Such quantitative performance indicators will correspond to the numerical targets usually contained in the expected result. Quantitative performance indicators are therefore fairly straightforward to formulate. But not all expected results necessarily contain such numerical targets. Difficulties arise when indicators have to be formulated for expected results that relate to concepts such as behaviour, attitudes, knowledge, awareness etc., in other words, qualitative aspects that cannot simply be expressed in terms of numbers. The challenge here is to define indicators that can accommodate such abstract or intangible results. Depending on the circumstances of the case, this can be done using indirect indicators for which any of the following methods, or a combination thereof is discussed below.

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58. A seemingly straightforward solution is to use a qualitative performance indicator. Qualitative indicators cannot be measured by means of numbers, but examine whether a certain situation or feature is present or not. Has the new policy been implemented? Has the institutional capacity to do x been increased? The measurement of such an indicator will yield either a positive or negative answer: the feature is either present or absent, the criterion either met or not. The disadvantage or risk of purely qualitative performance indicators is that they are considerably more prone to subjective interpretation than numbers: whereas one observer may consider that the new policy is in place, another may find that its application is not yet consistent and conclude that implementation has not been completed (this would mean that the indicator is either not sufficiently measurable or not verifiable). Consequently, qualitative indicators should only be used when none of the other methods described below are practical, and the indicator meets all other requirements, such as being measurable, verifiable and meaningful. Table 3 presents indicative performance indicators for HEIs.

Table 3. Indicative Performance Indicators of HEIs

№	Performance indicators	2016	2017	2018
		Actual		Planned
Basic Data				
1	Enrolment (% female)			
2	Number of Graduates			
3	Number of Teachers			
4	Number of classrooms			
5	Number of laboratories			
6	Annual Planned Budget (MNT)			
7	Annual Actual Expenditure (MNT)			
Performance Indicators				
1	Gross Enrolment ratio			
2	Student drop out ratio			
3	Teacher to student ratio			
4	Admin staff to teacher ratio			
5	Unit cost per student			
6	PhD/total teacher ratio			
7	Number of graduates/total students			
8	Number of students employed within one year			
9	Student alumnae			
10	Number of student scholarships/total students			
11	Results based planning and budgeting installed			
12	Number of students passing professional exams			
13	Total cost to Total revenue ratio			
14	% actual expenditure to budgetary plans			
15	Timely submission of performance and financial reports			

IV. Conclusions and Challenges

1. Conclusions and Financing Options

- Competitive benchmarking provides HEIs with sound basis for decision-making. Appropriate governance and financial management systems should, however, be in place at the HEIs. Reliable data is necessary to establish the cost standards, and in identifying best practices.
- Budgetary reforms should be instituted in HEIs for greater efficiency. RBPB is proposed in resource allocation to HEIs through shifting the funding mechanisms from input (personnel salaries, maintenance and operating expenses) to outputs (course offerings, student places or graduates). Capacity building, advocacy and financial and management systems improvement and a phased implementation of RBPB are required. Financial and management systems improvement (responsibility and cost accounting, EMIS) are required to improve quality, equity and access in HE.
- Cost studies enables: (i) HEIs to have an organized tool for information storage and retrieval that can be updated periodically; and (ii) MECS and MOF administrators at all levels to have access to qualitative and quantitative indicators without having to go through voluminous data, thus enhancing decision-making in allocation and incentive mechanisms.
- To address shortages in capital and recurrent budgets, a gradual introduction of cost-based user fees undertaken. The user fees, however, should consider client affordability levels, market competitiveness, and profit or socialized pricing of education services.
- To improve quality, access and equity in education, fiscal autonomy of HEIs is proposed. Revenues can be channeled directly to facilities and staff upgrading, staff motivation, and incentives mechanisms.
- Sustained financing is proposed through implementing cost sharing and partnership among public and private HEIs.

HEIs need to establish RBPB and financial and EMIS. Public HEIs should institutionalize the calculation of cost norms through the improvement of management and financial information systems. Through these empirical studies, cost norms evolve to serve as bases for standard costs, which has been proven to achieve greater efficiency in education in some countries. HEIs offering quality HE should serve as benchmark for the other HEIs.

1. Challenges in Implementation

Data Requirements. Establishment of base data and linkage with EMIS: academic inputs, direct expense analysis, status of the course or program, support for

implementation, empowerment of HEIs, governance and sustainability, lack of facilities etc. Policy environment should be conducive to RBPB implementation.

Present Budgetary System. HEIs may not have cost centers, requirements estimated on historical trends, lack of reliable base for allocation, poor accountability. reductions in budget requests of HEIs. HEIs should be granted full autonomy in the management of the HEI, with the necessary responsibility and accountability. HEIs should be established as cost centers, meeting productivity measures, etc.

Management Capacity Requirements. There is a need to establish HEI-based management systems and strengthen capacity of HEIs on this. This will require HEI organization development, management systems improvement, and training on proposed systems. Fiscal allocations to HEIs will be based on business plans, which will be results based, rolling budgets over a 3-year period. Budgetary releases will be through block mechanisms, based on achievement of performance standards indicated in the plans.

2. Associated Measures

The following measures need to be undertaken to ensure the effective implementation of RBPB:

- An associated system of quality audit, involving clearly defined and objectively measurable criteria and standards, as requirements for government funding
- Incentives for quality and efficiency improvements for income generation
- Measures that will moderate class size and substantially reduce incidence of small classes and underutilized classrooms
- Measures that will discourage the establishment of new institutions, or open new courses and programs, except where the need is identified as a national or regional priority
- Measures to address the variation in costs
- Incentives to enroll students from socially disadvantaged groups

3. Proposed Financing Policies Relevant to RBPB

- All HEIs are to submit performance information with their budget requests.
- All HEIs to maintain comprehensive accountability systems, with a list of all the measures they maintain. This will help MOF and MECS managers monitor performance and take corrective when needed.
- Require HEIs to establish useful three year long range planning framework. While HEIs have been required to develop strategic plans for many years, these plans were not always tied to budget requests and did not always include cost information. The proposed policy will require HEIs to annually develop long-range program plans which are policy-based, priority-driven, and accountable. In developing these plans, HEIs are to thoroughly examine and justify their functions and associated costs. HEIs are to use the plans to implement the government's goals and objectives and to report performance

- indicators for their services and activities. In addition, the plans are to provide the framework and context for the HEI's budget requests.

4. Path Forward

- Need for sustained top management commitment and involvement
- Change management
- Sustained capacity building for key levels
- Performance management at all levels and related institutes
- Greater focus on performance planning process
- Yields to personnel performance review
- Strong policy level support
- Full endorsement of all administrative and legal systems for RBPB

5. Institutional Mechanisms

- RBPB committee for operational decisions and policy recommendations
- Institutionalize RBPB costing and planning methodologies
- Strengthen use of key performance indicators for the institutions
- MECS to set up evaluation and monitoring team for RBPB
- Establish RBPB task group to undertake RBPB (planner/MIS; accountant)
- Build comprehensive performance management system at HEIs and relevant institutions

6. Monitoring and Evaluation Systems

- M & E built into the RBPB system
- Monitoring linked to monthly performance to top management
- Performance information – financial and performance measures and key performance indicators, linked to government KPIs

9. Benefits of RBPB to Related Institutions

- MOF– allocative efficiency
- MECS – equity in budget allocation, quality linked to funding, empowerment of institutions and HEIs
- HEIs – recognition of performance, improved resource utilization, adherence to quality standards

Appendix A: Summary Features of RBPB

Features of the of Tool developed to implement RBPB

- Initial costs of all courses offered by HEI should be captured.
- A separate Planning tool to list the relevant Courses and determine required resources.
- The flexibility to amend/ change for
- 'What if ' considerations

Features of the of Tool developed to implement RBPB

- The HEIs are empowered to select and offer any course available in the MECS list of courses, subject to availability of required resources.
- The selection criteria must ensure a minimum enrollment of xx students to justify the related expense.
- If a new course is required to be introduced the necessary details are to be submitted to MECS for evaluation
- Once approved all details are to be captured and a master file created in the Course master file.
- Inclusion in the master data file is the official availability for implementation.

Develop and maintain a database for each course

- Objectives
- Mode of Certification
- Targeted Students
- Entry requirements
- Course Resource requirements
- Delivery Methods
- Quality assessment criteria
- All elements cost elements
- Management Tools
- Creation of measurement / comparison norms for management.
- Application of Standard Costing methodology
- Variance Analysis to enable early appropriate action.
- Management by exception for more focus on problem areas.

Reports and Interpretation

- Planned courses
- Capacity utilization for all resources
- Options to optimize resource utilization
- Report on gaps in resources
- Performance reports, Monthly/Quarterly etc.
- Basis and support for request for fund allocation
- Productivity in performance
- Quality Assessment

- Cost per student
 - = value in usage of funds/keeping to norms/related decisions

Some Performance Targets

- Targets to motivate the Institutional Management/Recognition of Performance
- No of Courses Vs available resources – capacity utilization
- No of students – enrollments incr/decreas
 - Completions incr/decrease
 - Work placements c/f past
- Optimization in use of resources
 - Teaching staff
 - Class rooms & Workshops
 - other facilities
- Delivery of Courses within standard costs

Appendix B: Indicative Performance Indicators

Refocused HEI Management

- HEI has E-MIS and F-MIS, ISO 9001:2000 and HRD plan for staff development
- HEIs file quarterly and annual progress and financial reports to MECS/MOF using approved formats
- HEIs develop job placement information office and database component for graduate employment status

Improved Quality of Teaching & Learning

- HEIs complete agreed refurbishment and upgrading
- HEIs introduce new teaching methodologies – e.g. group teaching, self-paced learning and applied project work
- HEIs establish e-libraries and use e-learning in teaching
- HEIs adhere to national standards
- HEIs follow guidelines and syllabus for all subjects, as well as revised textbooks that support them
- HEIs achievement of standards
- HEIs organizes upgrading of teacher skills to international standards

Strengthened school-industry linkages in HEIs

- HEIs enter formal arrangement(s) with local companies for student apprenticeship to share knowledge and expertise
- HEIs deliver xx courses per year for refresher courses for professionals
- HEIs enter agreements with local companies for public private partnerships

Enhanced Entrepreneurship in HEIs

- HEIs organize training and materials to upgrade entrepreneurship education
- HEIs conduct entrepreneurship introductory training to xx% students and advanced training to x% students
- HEIs income generating activities' income increases by x% or new IGAs established.

Appendix C: Sample Application of RBPB Methodology

HEI Strategic Direction

- Vision
 - A Mongolia where citizens have access to quality higher education that leads to productive employment and socio-economic development.
- Mission
 - Provision of high quality higher education programs that meet the globally competitive development requirements in keeping with the changing needs of the economy.
- An Overall objective
 - To provide gainful employment for youth through high quality and market oriented higher education and produce globally competitive human resources.

VISION: To be a center of excellence in providing higher education.

MISSION STATEMENT: To be the most preferred higher education institution, providing innovative and diverse, industry responsive and market oriented technical education and training employing the contemporary teaching -learning methods, and creative leadership & resourceful management

STRATEGIC GOAL (Impact): Ensure that xx% of graduates are employed with increased incomes.

STRATEGIC GOALS

1. Innovation and diversity
2. Quality of teaching-learning
3. Governance and performance management systems
4. Responsive to economy
5. Market orientation

STRATEGIC OBJECTIVES:

Strategic Objective 1: Achieve an increase in enrollment intake by 20% by 20xx.

- **Strategic Performance Goal 1:** By 20xx, achieve an increase in graduates employed by x% from 2008 base data.
 - **Annual Performance Goal**
 - **Performance Indicator 1.1:**
 - **Activity**
 - **Task - \$ or MNT**

Strategic Objective 2: Increase in % graduates who entered work or university after graduation

Strategic Objective 3: Increase in average earnings of graduates 2 or 5 years later

- Strategic Performance Goal 2: By 20xx, achieve an increase in certified students from xxx in 2009 to xxx.
- Strategic Performance Goal 3: By 20xx, achieve an increase in certified students from xxx
- Strategic Performance Goal 4; By 20xx, achieve a reduction in dropout rates from xx% in 2009 to xx%

Goal 2 (T-L methods)

Strategies:

1. Maintaining high quality for all higher education programs.
2. Implement student centered learning
3. Implement proper evaluation methods
4. Introduce courses through flexible learning

Strategy 1: Maintaining high quality for all HE programs.

Activities:

1. Provide support services such as librarian facilities, handouts, demonstrations, photocopy facilities, internet facilities.
2. Provide suitable training equipment and materials.

Strategy 2: Implement student centered learning

Activities:

1. Provide special attention to weak students
2. Identify and implement new teaching and learning methods
 - Simulations, models, virtual reality debates, presentations, research

Strategy 3: Implement proper evaluation methods

Activities:

1. Identify and implement various evaluation methods such as assignments, projects, oral testing, presentations, interim and final examinations.
2. Conduct assessment

Strategy 4: Introduce methods for getting exposure in companies

Activities:

1. Arrange apprenticeships
2. Conduct guest lectures

Strategy 5: Introduce courses through flexible learning

Activities:

1. Conduct module based training
2. Identify suitable course to implement distance learning programmes

Program and Financing (In MNT)

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Increase the number of graduates employed by x% from 20xx base data.					
-	xx				
-					
- Issue xx diplomas					

Program/Unit	Strategic Goal 1			Strategic Goal 2		Strategic Goal 3		Total Cost
	Obj 1.1	Obj 1.1	Obj 1.1	Obj 2.1	Obj 2.2	Obj 3.1	Obj 3.2	
Prog 1, Unit A							36,850	36,850
Prog 2, Unit B							3,867	3,867
Prog 3, Unit C		56,550	28,950					85,500
Prog 4, Unit B					15,700	29,800		45,500
Prog 5, Unit D				21,500				21,500
Prog 6, Unit D	359,700		25,000					384,700
Total	359,700	56,550	53,950	21,500	15,700	29,800	40,717	577,917

HEI A	Unit Cost (MNT)/Course	Priority Factor	Target Courses	Target Students	Budget/Month (MNT)	Budget/Year (MNT)
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Course Offering 1	75,000	2	3	90	450,000	5,400,000
Course Offering 2	82,000	1.7	3	77	418,200	5,018,400
Course Offering 3	65,000	1	4	60	260,000	3,120,000
Course Offering 4	75,000	1	1	15	75,000	900,000
Course Offering 5	75,000	2.5	2	75	375,000	4,500,000
Course Offering 6	39,000	1.2	5	90	234,000	2,808,000
Course Offering 7	75,000	1	4	60	300,000	3,600,000
Course Offering 8	55,000	1	1	15	55,000	660,000
Course Offering 9	75,000	1	4	60	300,000	3,600,000
Course Offering 10	40,000	1	5	75	200,000	2,400,000
Total				617	2,667,200	32,006,400