

Higher Education in Pakistan:

Towards a Reform Agenda

A Contribution to the
Task Force on
Improvement of Higher
Education in Pakistan

DRAFT

THE
BOSTON
GROUP

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Preface

"There is nothing more difficult to carry out, nor more doubtful of success, nor more dangerous to handle, than to initiate a new order of things."

Niccolo Machiavelli

This report has been prepared by The Boston Group (TBG) as its contribution to the Task Force on Improving Higher Education in Pakistan (referred to as the Pakistan Task Force [PTF] in the remainder of this report). The purpose of this report is to advance the discussion already initiated by the Task Force as well as the ideas previously presented in the 2000 World Bank Task Force on Higher Education (TFHE).¹ The members of The Boston Group believe that this discussion is important, even critical, to the future of Pakistan. The Boston Group intends to follow-up this report with an international conference on Higher Education in Pakistan (to be organized in collaboration with the Pak-Millennium Group) in March 2002 at Boston University, Boston.

It should be reiterated that this is not intended to be a stand-alone report. Rather, these comments and suggestions are meant as a contribution to the ongoing work of the Pakistan Task Force, and in particular to respond to their draft interim report. As such, while the report seeks to highlight issues that we consider to be of the most importance, there is no pretence towards comprehensiveness or detail. However, while it is not possible to get into the nitty gritty of every particular suggestion, we have made an attempt to define options and solutions at level of detail that underscores the practicality of the suggestion. Wherever possible, we have tried to back this up with examples of how things might be done in practice. However, it should be stressed that most important element are the broad directional changes we are recommending in the chapters that follow.

The Boston Group is an informal think tank, comprising mainly of Pakistanis abroad—scholars, educationists, researchers, professionals and activists—with an interest in contributing to policy discussions related to Pakistan's development.² The **authors and contributors** of this report include Dr. Khurram Khan Afridi, Anila Asghar, Dr. Tariq Banuri, Irfan Ullah Chaudhary, Duriya Farooqui, Prof. Asim Ijaz Khwaja, Dr. Salal Humair, Prof. Adil Najam, Farhan Rana, Hasan Usmani and Bilal Zuberi. They come from varied academic and professional backgrounds but bring with them a common commitment to the improvement of Pakistan, particularly in the area of higher education.

Since early 2000, The Boston Group has focused on the issue of higher education reform in Pakistan. A series of meetings of the group have focused on various aspects of the issue; this report has greatly benefited from the ideas discussed at these forums. Besides the authors of the present report, the following have participated in these brainstorming sessions and have contributed ideas that are reflected in this report: Roohi Abdullah, Barry Hoffman, Masood Ahmed Khan, Dr. Malik M.A. Khan, Bilal Musharraf, Shahid Ahmed Khan, Dr. Musadik Malik, Prof. Atif Mian, Prof. Khalid Saeed, Mahjabeen Quadri, Rizwan Tufail, Dr. Naheed Usmani, and Shundana Yusaf.

¹ *Peril and Promise: Higher Education in Developing Countries*, World Bank, 2000, available at www.tfhe.net.

² The group gets its name from the fact that its first meetings were in Boston and its current membership is predominantly (although not solely) located around the Boston area.

Finally, **a word of gratitude** for those who have given us generously of their time and wisdom. We sought advice from a number of key individuals involved in higher education reform and related subjects in Pakistan and elsewhere. Indeed, the ideas presented here would not have been possible without the generous assistance, guidance, and support of many individuals. Foremost amongst these are Professor Henry Rosovsky, Dean Emeritus, Harvard University, and co-Chair of the World Bank-UNESCO Task Force on Higher Education in Developing Countries, and two members of the Task Force, Syed Babar Ali and Professor David Bloom. All three have been most generous with their time and support, and many of the ideas presented here would reveal their imprint. We have also benefited from the discussions and papers prepared by the Aga Khan University in connection with its plans for establishing a faculty of arts and sciences. These meetings were chaired most ably by Dr Shamsh Kassim-Lakha and Professor Robert Edwards, both of whom have contributed to the thinking of the authors of this report in many ways. Professor Zulfiqar Gilani, has interacted with the members of the Boston Group consistently since his appointment as Vice Chancellor, Peshawar University, and we are most grateful to him for providing a reality check against which to assess various options.

Members of the Boston Group have also met collectively or individually with a large number of leading experts in order to solicit their advice and guidance. Among the individuals who have contributed the most to our thinking are Salman Ansari, Dr. Nasim Ashraf, Shahid Javed Burki, Prof. Pervez Hoodbhoy, Prof. Hamid Kizalbash, Professor Khalid Nadvi, Dr. Sohail Naqvi, Prof. Azhar Abbas Rizvi, and Dr Shiv Someshwar.

Most importantly, we are grateful to the members and co-chairs of the PTF for having invited us to comment on their interim report and hope that this contribution from The Boston Group will be of use to the Task Force.

1. Introduction

In this introductory chapter we begin with outlining our vision of the reform process, defining a set of design principles which have generally guided the recommendations in this report, outlining the structure of the report, and summarizing our key recommendations which are later discussed and detailed in subsequent chapters.

For purposes of this report, we define higher education to mean all courses, curricula, texts, institutions, and faculty, involved in teaching students beyond the intermediate level (i.e. year 13 and onwards). However, to the extent that intermediate level education has a direct bearing on higher education (through things such as university entrance examinations), these are touched upon here.

1.1 Envisioning Reform

After considerable discussion and debate the Pakistan Task Force on Higher Education has set out a vision for its reform program that aims to transform Pakistani institutions into world-class seats of learning and advancement of knowledge, in order to create a modern, progressive, tolerant and prosperous society that values the dignity of labor, craftsmanship, spirit of inquiry, critical thinking, and public duty. This is consistent with the range of opinions that have continued to inform this issue in both academic and popular media. There are continuing concerns about the rising levels of intolerance, conflict, violence, and civic indifference. To these have been added a number of voices that see in these trends a recipe for persistent poverty and dependence.

Higher education has always been an important component of the social agenda, but it has acquired a new importance today. In the emerging 'knowledge economy', nations that fail at creating a decent learning environment will lag behind, and may end up becoming virtual colonies of those that do succeed in this regard. The TFHE (p. 12) report puts it very well:

The world economy is changing as knowledge supplants physical capital as the source of present (and future) wealth.... As knowledge becomes more important, so does higher education.... The quality of knowledge generated within higher education institutions, and its accessibility to the wider economy, is becoming increasingly critical to national competitiveness.... This poses a serious challenge to the developing world.... Quite simply, many developing countries will need to work much harder just to maintain their position, let alone to catch up.

Pakistan's situation is particularly grave, and some consider the system to be in a virtual state of collapse. Although the private sector (both non-profit and for-profit) has set up a number of good quality institutions of higher education, they cover less than 10 per cent of the relevant age cohort, and future projections do not create a basis for much optimism. As a result the primary burden of higher education in Pakistan will have to be borne by public universities and colleges. They serve the vast majority of the population, are affordable by most Pakistanis, and cater to equity along regional, income, and gender dimensions.

Box 1.1: Educational Apartheid—A System Divided Against Itself

A special problem in Pakistan is that the country has multiple parallel systems of education. First, there is the well-known division between the so-called English Medium and Urdu Medium schools that exacerbates existing social and economic divisions and leads to a virtual system of educational apartheid in the country. Indeed, the division has both deepened and broadened over recent years as further differentiation has emerged both within the Urdu Medium schools and the English Medium schools. For example, the spectrum of the alter now runs from government run English Medium schools, to semi-autonomous ones – both of which are governed by a national curricula – to ‘elite’ private schools that specifically cater to training the children of the very rich for a college education abroad and are consciously distant from the realities of Pakistan. When such divisions are made only on the basis of economics and social class, it becomes one more means of consolidating and perpetuating economic and social disparities. In a society already torn by stratification, this builds yet one more layer of walls between people.

Second, and equally important is the divide between the ‘formal’ educational institutions (formal in the sense of being under some nominal supervision of national educational authorities) and the ‘informal’ institutions, especially the *Madaris*. The *madrasah* system differs from the formal educational system (including its own internal divides) most profoundly in every respect—the underlying approach to education, the values to be espoused, the literatures to be studied, the philosophical bases of pedagogy, and the social and political priorities. Although the graduates of the two systems have long been active in the social, cultural, and political life of the country, their relative proportions, economic prospects, and their attitudes towards each other have changed dramatically. During the first Afghan war (1979-90), the *madrasah* system expanded from a small and impoverished enclave to an elaborate and well-funded network. Although precise numbers are not available, the general impression is that it now produces graduates in the thousands. Whatever the political motivations and implications of this development might be, the point is that the existence of two completely alienated systems of cultural reproduction has contributed significantly to the social polarization. To put it most bluntly, both groups simultaneously harbor feelings of inferiority and superiority towards the other. It is very clear that a society cannot long survive in such a polarized situation.

The problems that are identified in the system are legion. These include poor quality of teachers, low student motivation, lack of relevance of the course content to social or economic needs, gender and class disparities, student discipline, outdated curriculum and course materials, fiscal insolvency, and absence of research. Teacher quality is affected adversely by the poor salary and benefits and perverse incentives provided by systems of retention and promotion. Students face an unsatisfactory learning environment, overcrowded classrooms, rote learning, inadequate and outdated teaching materials, and a highly charged political situation. The result is that the vast, rather the overwhelming majority of students emerge from Pakistani universities and colleges with no significant social or technical skills. Notwithstanding the rhetorical commitment to scientific and technical education, the actual quality of technical institutions has deteriorated over the last three decades. In other areas, the situation is even more depressing. There is little emphasis on communication, languages, writing, or the humanities. Built on the tradition of the British system from the 19th century, the educational programs purport to train students for employment in the public services, and therefore do not provide any training in entrepreneurship, marketing, or other skills that would be more relevant. An environment that encourages cheating and corruption mars even the training for public service. More generally, the course content as well as the extra-curricular environment ill-prepares the students for participation in the social and political development of the country. Institutions of higher education have sat on the sidelines as the major currents of globalization, corporate concentration, technological revolution, and fundamentalism swept the globe; students have learned about these areas mainly from other sources, and often by specialized private education centers. The weakness is most glaring in the case of the technological revolution; notwithstanding the high demand, mainstream Pakistani educational institutions still do not have credible course offerings in the area of information technology, and do not have any program to provide such courses on biotechnology and nanotechnology. Arguably, the physical and social infrastructures of universities and colleges lag far behind other national institutions in terms of exposure to the electronic age.

The litany of problems outlined by various observers is both long and depressing. Box 1.1, for example, outlines the chronic problem of educational apartheid at the base of Pakistan's educational system. It is not our goal to list all that might be wrong with higher education in Pakistan. Nor do we seek to produce long laundry lists of all that could be done to improve the situation. We seek, instead, to identify some key issues and strategic initiatives that could begin pushing the system towards meaningful reform. In doing so we understand that our aspirations, no matter how high, have to be contextualized within the realities of Pakistan. In particular:

- We are mindful of the fact that **not every institution will be able to achieve the goals outlined here**. Indeed, the World Bank's Task Force on Higher Education has argued quite compellingly that countries need to aim for a diversity (also referred to as differentiation or explicit stratification) of educational institutions—extending from research universities at one end of the spectrum and to provincial or regional universities, professional schools, vocational schools, and virtual or distance learning institutions. Our advice focuses on the higher end of this spectrum, mainly because we expect that the entrepreneurial energy to create a new model can only come from this level, and also that the success of high-end institutions in creating a new model is necessary for others to follow suit. More importantly, this focus will also provide incentives for competition amongst universities and colleges.
- We are also mindful of the fact that **resources are limited**. Therefore, much of our advice pertains to areas where changes can be made within existing resources. This involves improving managerial efficiency and monitoring systems, reorienting energies towards more important areas, and establishing proper systems of governance and financial management. A second component is the advice on raising the resource base of the institutions. While this may require initial investment in establishing proper systems and protocols, this investment would more than pay for itself and would therefore be well advised.
- Finally, and most critically, we are acutely mindful of the fact that **in Pakistan, the problems with the educational system are far more pervasive, and that equal attention needs to be paid to the primary and secondary levels**. We do not intend this exercise as a way of drawing attention away from those equally pressing problems. However, we hope that a concerted reform effort at the level of higher education will create a demand for better quality secondary and elementary education and thus provide incentives for more effective reform at those levels.

As the quote from Machiavelli at the head of this chapter suggests, change is never easy. It is likely to be particularly difficult in the case of education reform in Pakistan. Yet, it is abundantly clear that a 'new order of things' is desperately required at all levels of education in Pakistan, with higher education being no exception.

1.2 Design Principles

While there have been many ill-fated attempts at higher educational reform in the past, they have all suffered dearly from being *ad hoc* and *selective*; limited by their very own vision, scope and application. The problems at hand require a process that is both *strategic* and *systemic*. Rather than drawing up long lists of 'good' things that could be done and then

hope that ‘some’ of them would be implemented, it is important that a minimum ‘critical’ set of tasks be identified and all of them be implemented. The key challenge is to mobilize the political, financial and administrative support for the changes proposed. It should be quite clear that without such support the best of ideas – including those presented here – will necessarily flounder.

However, before moving to recommendations for change, it is useful to spell out a clear vision of what the reform process seeks to achieve, and to articulate a set of explicit goals that might actualize that vision. Such a set of goals might include the following broad elements which focus on the quality of who goes into the universities, what happens inside universities, and what is produced by universities:

- The very best students in the country should be assured the very best education in the country on the basis of merit and irrespective on financial constraints.
- All universities should be able to meet minimum defined standards of faculty quality, procedural reliability, and fiscal solvency.
- Centers of higher education should be recognized by individuals and institutions as producing students and research of a demonstrably and reliably high quality.

While it is not the purpose of this report to do so, a set of measures and criteria should be developed to monitor the quality of higher education in Pakistan and how well the goals outlined above are being achieved. Some of these could be gauged by standard measures used around the world to rank and rate universities (including performance measures for students and faculty, spending profiles, etc.). Importantly it would also require a regular and transparent monitoring of student intake and placement. For example, do the most competitive employers in Pakistan rate students from Pakistani Universities at a similar level as students from foreign universities? Are the attitudes of prospective students and their parents towards the value of higher education received in Pakistan (as opposed to abroad) shifting, and in which direction? Although qualitative and necessarily imprecise, such attitudinal surveys may be the best measure of actual change. **The Task Force could set the process in motion by establishing a team tasked with designing the type of survey instruments that can gauge and publicize the state of higher education in Pakistan according to the goals above.** Potentially, such information could serve both as a measure of and an impetus for better performance.

It is also useful to identify a set of design rules that can guide us as we sift through all that can be done and search for that which is most important to do:

- 1) Build on that which works.** Despite all the ailments that the system of higher education in Pakistan suffers from, the fact remains that there are elements of the system that work fairly well. It is critical that these strengths, where they exist, be identified and built upon. Similarly, it is important to identify and nurture those cohorts within the system that can be the agents of positive change. For example, the fact that students who graduate from the Pakistan educational system routinely do well (and often excel) in educational and professional environments abroad suggest that the system in Pakistan is still able to produce good students. Within some of these universities there exist centers, departments, and groups that are doing effective teaching and research (for example, the HEJ Laboratories at Karachi University, the Department of Physics at Quaid-I-Azam University, etc.).

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- 2) **Reality must be understood, but never feared.** While many of the changes needed might seem intuitively obvious to the outside observer, there are powerful vested interests that either benefit from the status quo or have grown too used to it. They are unlikely to let go without a fight. Such realities need to be understood, but worked around. The reform process must be strategic in its focus – saving its fights for things that are likely to provide the highest immediate benefit or trigger enduring systemic change.
 - 3) **Focus on Basic Principles.** Past attempts at higher education reform in Pakistan have often spent more effort in trying to identify and invest in growth areas with future potential rather than concentrate on laying the foundation of a strong ethic of inquiry and research. Such efforts have tended to be unsuccessful. It is far better to focus on the basic principles of good education and work on the assumption that a robust system of higher education will itself gravitate toward emerging opportunities (and no amount of ‘pushing’ a dysfunctional system to potential opportunities will ever be successful).
 - 4) **We can learn from others, but need not mimic them.** It is extremely critical that we learn from the experience of other countries and systems. However, it is even more important that any changes be rooted in the realities of Pakistan. For example, it is very important to understand *why* many countries have moved to a four-year Bachelor’s degree, but there is no reason to do so simply *because* others have done so. Just because a certain thing has ‘worked’ elsewhere is no reason to assume that it will also work in Pakistan; but understanding why it worked where it did is always of relevance.
 - 5) **Measure, Evaluate, and Monitor.** It is important to set up evaluation criteria and programs for any reform effort that is initiated. While it is understood that not everything can be measured quantitatively, it is vital that progress be monitored. This is important not only so that implementation can be kept on track but also because this is where the design learning will come from. Reform is not a once-off initiative; it is an ongoing process. Constant vigilance and evaluation for the purpose of learning and keeping the process on track is necessary.

1.3 Structure of the Report

Although the range of problems as well as their potential solutions is quite vast, we have chosen to discuss the reform options under three headings:

- **Institutional Reform** and the challenges of governance.
- **Curricular Reform** and the challenges of pedagogy.
- **Fiscal Reform** and the challenges of fiscal solvency.

This choice of structure is partly a matter of organizing our thoughts into easily recognizable categories, and partly a matter of parsimony. These appear to be at the top of the lists of many of those engaged in the reform effort. They are also “strategic” issues, in the sense that progress along these dimensions could produce a self-reinforcing cycle of changes.

Chapter 2 touches upon the history of educational reform in Pakistan, outlines this report’s approach to reform, and discusses the importance of higher education. **Chapter 3** deals with the challenge of governance and outlines proposals for institutional reform. It

examines the current organizational structure prevalent in Pakistani public universities, points out the potential problems in this structure and concludes by suggesting viable structural changes. **Chapter 4** takes a closer look at curriculum concerns and makes the case for moving towards general education. **Chapter 5** addresses the important issue of fiscal reform suggesting means to alleviate the 'triple whammy' faced by Pakistani public universities: a general lack of funds and misuse and mismanagement of these funds. Finally, **Chapter 6** suggests ways in which some expected challenges in the reform process might be mitigated. This final chapter also lists the strategic and tactical steps that need to be taken to operationalize the recommendations contained in this report.

1.4 Summary of Recommendations

This final section summarizes the *key* recommendations of the report. These will be discussed and elaborated upon in subsequent chapters.

1.4.1 Design Principles for Reform

A reform process cannot be successful unless if it takes seriously the variety of obstacles that it is likely to confront. In particular, given Pakistan's history of several well intended but unsuccessfully implemented reforms, it is important to maintain a focus on the implementation problem. With this view, we suggest that the current reform initiative be based on a few practical considerations.

1. **Higher Education must be understood as a system** and a critical set of reforms must all be implemented simultaneously; otherwise they are bound to fail.
2. The **strategic center of the reform process is the university**—not government ministries, the task force, the university grants commission, or other national or provincial policy making institutions. Absent a university-level commitment to reform, no national or provincial actions can produce results. The bulk of our recommendations therefore are designed to assist university administrations, faculties, and student bodies to put in place policies and practices that can transform these institutions into high-class centers of learning.
3. The optimal role for the government, as well as the task force or other apex body, is to **support** (rather than govern) the substantive reform process—a process that can unfold only at the university level. In concrete terms, "support" means the **creation and strengthening of a community of champions of reform** in each university and in the society at large; and more generally, the **mobilization of financial, technical, human, and social resources** needed by the reform processes in universities; and the establishment of measurable indicators of performance against which to assess the performance of individual actors as well as the success of the reform process.

1.4.2 Institutional Reform

1. The **administration of public universities should be de-linked from government**.
2. Within universities, **policy should be separated from management**.
 - a. The syndicate should become the policy-making body of the university rather than its management body.
 - b. As a policy making body, the syndicate should elect its own chair. Under no condition should a VC chair the syndicate.

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- c. The Vice Chancellor (VC) should be appointed by and should be answerable to the syndicate.
 3. The management of the University's affairs should be in the hands of the university administration, headed by the VC. The university administration should be reorganized to (i) **match roles with appropriate responsibility** and (ii) to give **full autonomy to decision-makers**, who should be accountable to the oversight body (the syndicate) for their performance.
 - a. The VC rather than the Chancellor should appoint senior administrative staff, Deans, and department chairs.
 - b. Faculty hiring should be based on departmental selection committees and recommendations of the department chair.
 - c. Tenure system for faculty appointments should be implemented. Faculty evaluations should be based on their performance in research, teaching and service, and should be carried out by committees of senior faculty.
 4. In order to enable Universities to accord a **high priority to strengthening research** and making it socially relevant and useful.
 - a. An office for administration of research must be created to assist faculty in obtaining research grants from outside sponsors.
 - b. The principle of "university overhead" must be developed, and the overhead costs must be included in all the research grants made to a university.
 - c. To strengthen interaction with external agencies (including government, the private sector, donors, and NGOs), we propose the establishment of a **Research Laboratory System**. A lab is meant to connote not only a physical sciences laboratory, but also an institution for creating and strengthening inter-departmental and inter-disciplinary cooperation for a specific purpose—whether it is the development of policy recommendations for say the Ministry of Health, or the improved design of diesel generators for the generator industry. Traditional academic departments as well as research laboratories should be organized into a matrix structure with the latter cutting across departmental boundaries. Research laboratories should be established especially in areas with a predominance of emerging technologies and industries.
 - d. The criteria for faculty promotions and salaries (including other financial benefits) should also include (i) performance in research, (ii) total research money brought to the university, and (iii) and the faculty's "market value". Transparent criteria for these should be defined beforehand.
 5. The role of governmental institutions should be transformed from that of governance to support of the universities and colleges.
 - a. **Higher Education Support Commission (HESC):** We advocate the establishment of a new, independent and transparent statutory body, the Higher Education Support Commission, whose goal should be to mobilize financial, technical, human, and social resources for enhancing the quality of educational institutions, and for facilitating the reform process initiated within these institutions. Its mandate should include the matters currently under the jurisdiction of the UGC, but also include additional items that will be required for the proper discharge of those functions. For example, it should set up transparent mechanisms for the selection and appointment of VCs on merit. The HESC should be headed by an individual of the highest ability and integrity, and its membership should come from the entire range of stakeholders of higher education—the government, educationists, the private sector, researchers, NGOs, journalists.
 - b. **Ministry of Education:** The Ministry of Education has already embarked upon a program of reassessing its role and priorities. This program should be supported
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- in order that the government becomes a facilitator of rather than an obstacle to reform.
- c. **UGC:** The UGC was established with some of the same goals that we recommend for the HESC. However, because of its structure and functioning, it has not succeeded in performing these functions well. We therefore recommend that the UGC should be disbanded and that its functions should be transferred to the newly created HESC. However, the latter should be given a 'clean start' and the freedom to create a fresh structure rather than be bogged down in a revamping the UGC.
 - d. **Examination systems:** We recommend that the system of examinations should have two additional characteristics: competition, and responsiveness to ultimate users. As such, we propose that universities spin off their examination departments into autonomous institutions, governed by independent boards of governors with representation from all end-user groups (government, private sector, media), loosely affiliated with universities. More importantly, we recommend that all examination systems should be opened up to all students from anywhere in the country.

1.4.3 Curricular Reform

The main thrust of our recommendations is to **focus on the curriculum system** rather than individual curriculums or courses. We recommend a two-pronged strategy: first, **a shift to a broad-based general education system**; and second, **the establishment of mechanisms to raise the quality of scientific and technical education**. We believe that it is not the purpose of the curriculum system to guess the next growth area. We believe that in the Pakistani context, the best approach is to initiate a shift from the current system of early specialization towards a modern system of **general education**. Instead of forcing high-school students to choose between the arts and the sciences, and college students to select their fields of specialization soon after enrolment, the general education system offers a broad-based curriculum in high school and college, and defers specialized education until the last two years of college or later. We recommend initiating a formal process of discussion on the pros and cons of introducing general education with an eye towards **gradually replacing the 2-year Bachelor's degree with a 4-year degree**. The practical steps in moving in this direction would include:

1. A decision is made in principle to switch to general education.
2. An implementation committee is constituted, consisting of college and university faculties and administrations, as well as academic experts, government officials, publishing houses, industry representatives, and students.
3. The committee sets up subcommittees on the core curriculum, and those that examine the implications of the shift on financial, testing/examinations system, recruitment, and institutional dimensions.
4. The committee provides recommendations on the core curriculum, financial allocations, fundraising mechanisms, student selection, faculty recruitment, revamping of the examination system, and institutional cooperation and sharing.

We recommend following in terms of **higher scientific education**:

1. **Strategies for scientific development:** Explicit linkages should be introduced amongst institutions of research and education, and between these and industry.
2. **Local, regional and international cooperation:** One or more global networks of expatriate Pakistani scientists – including existing groups – should be established and actively nurtured. Universities should use these networks proactively to upgrade their

educational methods and resources. These external groups should be utilized in organizing conferences, creating information exchange systems, and facilitating exchange programs.

3. **Salaries and compensation** of faculty need to be improved so that the best-qualified people can be attracted away from jobs in the private sector or government service.
4. **Physical and technical resources:** The aim of the reform process is to lower the acquisition cost for universities of technical equipment and other physical resources. The recommendations include the establishment of mechanisms that enable institutions to pool their demands (thus lowering costs), identify sources of second-hand (but close to state-of-the art) equipment, use Internet resources to supplement books and printed materials; and import necessary items at low import tariffs.

1.4.4 Fiscal Reform

The recommendations on fiscal reform are structured around three key areas: a) raising resources, b) managing resources, and c) investing resources.

In terms of **raising resources**, there are various options available many of which are untapped and all of which should be utilized to the degree possible.

1. **Government resources:** *Transparent* and *predictable* formulas should be defined and publicized according to which program funds are disbursed to public sector universities. In addition:
 - a. Discretionary funds for special projects should be available, and dispersed on a need basis.
 - b. A set of performance-based funds should be available to UGC for use as incentive for achievement.
 - c. A transparent and regular system of ranking institutions of higher education should be developed either by UGC's successor institution or independently.
 - d. Local government and utilities should be encouraged to support universities operating in their jurisdiction, such as local tax incentives, cost-sharing on utilities, grants for student support, or support in infrastructure development, etc.
2. **University Resources:** There is significant untapped potential in this area.
 - a. The tuition structure and fees should be rationalized to reflect the cost of the education.
 - b. Universities should be encouraged to initiate programs of professional education as a revenue generating strategy.
 - c. University property resources should be treated as assets and universities should be allowed and encouraged to manage these assets as finance-generating devices.
3. **External Resources:** Effort towards mobilizing external resources could include:
 - a. Investing in creating strong 'sponsored research programs' where full-time university staff assists faculty members in attracting research grants and encourages potential sponsors to use the university's faculty for sponsored research.
 - b. Taping into short-term sources such as International donor agencies and public philanthropy, which tend to be particularly useful in terms of raising endowments, expanding on buildings, and creating scholarships.
 - c. Setting up an Office of Alumni Relations (with added responsibility for philanthropic fund generation) to tap into alumni resources.

In terms of **managing resources**, the key issue is of setting up transparent, accountable and rationalized systems of fiscal management.

1. **Transparency and disclosure:** Universities should disclose in transparent and accessible formats exactly how much of the public's resources they are using, and in what manner.
2. **Accounting:** Universities should rationalize their tuition, i.e. 'bill' the students for the full amount spent on them – independently of whether they are 'charged' the actual amount or not.
3. **Fiscal management:** A professional 'Vice President of Finance and Administration' position should be created to manage financial reporting requirements, university property resources and any investments and endowments that the university might have.

In terms of **investing resources**, the priority should be focused on the defining mandate of the university – i.e. students, faculty, and institutional development.

1. **Students:** To facilitate provision of quality education to any deserving student, a comprehensive financial support program must be available at all universities.
2. **Faculty:** Faculty salaries must clearly be raised to acquire the best talent, but resources must be targeted towards attracting the best people from within Pakistan because it is unrealistic to seek or hope for a large-scale return of Pakistani academics abroad to teach in Pakistani universities.
3. **Institutional development:** Resources should be focused on investments in buildings, laboratories and other facilities and investments in non-faculty staff and the core institutional framework.

1.4.5 Implementation

The main recommendation to reform-minded universities is to manage the socio-political aspect of the reform process explicitly by **creating an office of Reform Information**, with the following divisions:

1. **Public-relations/media cell** to mobilize and increase awareness of the community and public *at large*, using newspaper articles, press releases, TV interviews, websites etc.
2. **Community involvement cell**, to mobilize the community *within* universities, through consultative seminars, talks, community gatherings, and update sessions on the progress of the reform.
3. **Liaison cell** to engage the political leadership outside the university and lobby for changes.
4. **Research and development cell** to collect data and document the progress of the reform process as it evolves.

A related recommendation is to (i) **specify metrics for evaluating the progress of the reform process** before it is initiated, and (ii) **track progress** against those metrics.

2. Contextualizing the Reform Process

*We don't have the money.
Therefore, we have to think.*

E. Rutherford

Pakistan has a long history of failed reforms. Besides a spew of repeated constitutional reforms and constitution making (as evidenced by two quasi-constitutions in 1948 and 1985, three full-fledged constitutions in 1956, 1962, and 1973, and four supra-constitutional frameworks introduced by military rulers in 1958, 1969, 1977, and 1999), the country has witnessed repeated attempts to introduce agricultural and land reforms (1953, 1958, 1969, 1972), administrative reforms (1959, 1973), local government reforms (1962, 2000), industrial reforms (1972), financial sector reforms (1972), and many others. In addition, there is also an extensive collection of aborted reform efforts, which exist in our memory only in the form of discarded reports of specially appointed commissions, panels, committees, or task forces—e.g., the 1987 national commission on agriculture, the 1983 local government commission, and the 1959 education commission. These reforms, whether aborted or attempted, were not intended as narrowly focused on small organizations or activity; rather, they were conceived as system wide efforts seeking to change the pattern of behavior across a broad range of actors and institutions. However, none succeeded in achieving the ultimate aims of the reformers; and indeed, most were unsuccessful even in meeting their ostensible and proximate goals.

This less than illustrious experience raises doubts about the sagacity of yet another round of reforms. A pessimist might question what makes the present initiative more likely to succeed than its predecessors. Even an optimist would be compelled to ask how and under what conditions could the previous efforts have succeeded, and whether those conditions or approaches can be created or could be made to inform the present effort.

This chapter argues, however, that there is not only the need but also the necessity for a new reform effort in higher education in Pakistan. However, it must be one that learns from past experiences (and mistakes) and builds on a coherent and clear strategy of both why reform is needed, and how it might be actually implemented. This chapter proposes such a strategy, which is built on the following three pillars:

- First, there needs to be **clarity about what the reform can and cannot hope to achieve**. Much effort has been wasted in conceiving of reforms as military strategies, in which an intrepid general marshals his forces to achieve a pre-selected target. Experience suggests that the reform process may be quite different from a military exercise, and its goals better served by a continuous mobilization of supporters and protagonists.
- Second, therefore, a successful reform should aim at **creating and strengthening a community of reform champions**. The true test of a successful reform is not whether it achieves a limited set of objectives, but whether it stimulates, supports, strengthens, informs, brings together, and otherwise encourages a growing community of champions of reform. These champions must come not only from governmental institutions, but also from the private sector (publishing houses), advocacy groups, the mass media, and others.

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- Third, however, the reform must be able to show achievements, without which it is impossible to sustain the support of its advocates and protagonists. To this end, the effort must focus on **implementation**. The problem is not one of defining what needs to be done. Rather, it is of *how* it can be done. In the case of education, excellent ideas, dating back at least to the Sharif Report of 1959 have been in circulation for decades, but few have been implemented. We propose a few strategic areas in this regard. However, the final list is best developed through a process of consultation and discussion at the appropriate level. Yet, a guiding feature of the choice of strategic targets is the adoption of a systems approach.

Later sections in this chapter will discuss these three elements in more detail. We begin, however, with an overview of the history of previous reform initiatives in this area. The purpose here is not to criticize previous attempts at reform (many of which came up with very sensible recommendations, some not unlike the ones made here). The purpose of this quick review is to suggest that we should learn from these experiences.

2.1 Historical Context

We must recognize that Government has never provided adequate financial support for education either in absolute terms or in comparison with the effort being made in other countries. It is frequently argued that the level of support for education in Pakistan is related to the general economic position of the country and if our effort is to be judged in this light it is as much as can be managed. It is stated that because we are poor we cannot afford an extensive educational programme. There is, of course, some truth in this....The Commission has no wish to make any such idealistic recommendation. But to argue that we are too poor to invest in education is to argue that we must always remain poor. This goes against the whole concept of economic planning.

National Commission on Education 1959.

Pakistan's checkered history of investment and planning in education began immediately after independence in 1947 with the consideration of "such immediate projects (as) the provision of Senior All-India Polytechnics on the lines of Massachusetts Institute of Technology".³ More than half a century later, that "consideration" still has no hope of being implemented. The next major educational policy effort was National Commission on Education, 1959.⁴ The portions of this report on higher and technical education are a serious attempt to grapple with the problems of university education and still remain extremely relevant.

After the National Commission on Education 1959, came Education Policies of 1970, 1972, 1979, 1992 and 1998. Each one of these reports had its own bag of unrealistic (and ultimately unrealized) targets. However they all shared the belief that by the fiat of a minister, the stroke of a pen, without sound planning and investment, higher education would take care of itself. Some exacerbated the situation by recommending that new universities should be opened when it was obvious that the existing ones were not functioning (The Education Policy 1972-1980, p 13). Alongside these Education Policies, Pakistan Government also produced eight Five-Year Plans. Some of the common problems with regard to higher education discussed in the Five-Year plans were:

³Proceedings of The Pakistan Educational Conference 1947, p 63.

⁴Popularly known as the Sharif Commission.

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- Inadequate laboratory and library facilities.
 - Outdated syllabi and textbooks.
 - Poor quality of research and faculty.
 - Not enough students studying technical subjects.

After pointing out these flaws, the plans, like the Education Policies, went on to state that all these problems would be solved by the beginning of the next Five-Year Plan.⁵ The Five-Year Plans and the Education Policies were documents that set unrealistic targets, without providing for the funds and the political will to carry out the momentous tasks they assigned to the current Five-Year Plan or Education Policy.

Although the Five-Year Plans and the Education Policies (apart from the Sharif Commission) were riddled with serious flaws, even with all their glaring defects, had even a small percentage of policy recommendations been implemented with the requisite earnestness, it would have dramatically improved the situation of higher education in Pakistan.⁶ The recurrence of the very real problems in Pakistan's university education clearly shows that the various democratic and military governments have never considered higher education (and in general, education) worthy of their attention.

The current situation remains as dismal as ever: Pakistan spent 2.06% of its GDP on education in 2000-1 – the lowest in over a decade, and allocated 2.3% for 2001-2002 (the same as in 1997-98). The Pakistan Economic Survey 2000-2001 somberly observed that “one of the factors in the slow improvement in the education indicators has been the low level of public expenditure on education” and hence “the declining trend in the financial allocations (as a % of GDP) to the education sector is a major cause of concern”.

Given the abysmal history of implementation of education policies in Pakistan, there is a need for an outcry by all concerned individuals at the appalling record of military and democratic governments in the field of education.

The proposals presented in this report must also be understood in that context. As chronic optimists, we -- the authors of this report -- offer the proposals that follow in later chapters in the hope that this time around such commitment will be invested in the reform process. However, one must remain alert to the possibility, even likelihood, of such will being absent yet again. We must, therefore, seek out an approach to reform that does not focus solely on the presence of political will but draws on the efforts of existing agents of change.

2.2 Reform, Strategy and Process

Behind every reform, there is an implicit theory of change, even if it is often not stated explicitly. A classic view is of reform as a strategy in the military sense of the term—the use of limited resources to achieve a predetermined aim. Kemal Ataturk famously said that successful reform, like successful military strategy, required celerity and surprise. Once the

⁵ Pakistan Economic Survey 2000-2001, Ch. 11, states “The funding for higher education in Pakistan is very low as compared to other countries. This will be raised from the current 0.39 percent to 2.0 percent of the GNP by the year 2010”. Considering that we are right now spending a total of 2.06% on education, it is heartening to note that the policy makers are as optimistic as ever!

⁶ “The priority accorded to higher education in the drafting of the plans, however, has not always reflected in the implementation of plans” (4th Five-year plan, p 143).

target is identified clearly, it must be approached expeditiously without providing an opportunity to opponents to organize themselves. Zulfikar Ali Bhutto, arguably the most prolific reformer in Pakistan, appears to have taken a leaf from Ataturk's volume. Bhutto's reforms were based invariably on celerity and surprise, which may be a significant reason why they have left such a deep impression on the nation's psyche even if they have not been entirely successful. In many cases of this type, the citadel was taken but in the end it turned out to be the wrong citadel. It appears, however, that a strategy that might be useful when applied to a small and clearly defined target has been used to achieve a broad based change in social institutions and behavior.

The opposing reaction to this technocratic model took the form of jettisoning the outcome oriented approach altogether in favor of a process oriented approach. Under this theory, only democratic reforms were considered to be sustainable, since they ended up being owned by the people. Accordingly, it focused on transparency, participation, openness, inclusiveness, and breadth of ownership, and operated through consultations, dialogues, public hearings, discussions, and generally participatory arrangements. The National Conservation Strategy is a prime example of this approach. However, while it (like a few other outstanding examples of its type) succeeded admirably in promoting consultation, dialogue, hearing, discussion, and participation—and valuable as these are in and of themselves—it cannot yet be argued to have produced a dent in its ostensible targets—afforestation, energy conservation, rangeland rehabilitation, waste minimization, resource efficiency, and biodiversity conservation.

Hidden in each of these two, however, is a third approach to reform. It focuses neither on the outcome nor on the process, but on *enterprise*. The purpose of reform is to create champions of reform. This theory of social change is premised on the concept of the social entrepreneur, someone who takes it upon him or her self to create a new public good. It is modeled on the example of Akhter Hameed Khan, Shoaib Sultan Khan, Syed Babar Ali, and others, who have mobilized financial, human, political, and social resources to create new public goods, and doing so, have created models for others to emulate. Their success contrasts radically with the failure of governmental attempts to use policy to create public goods in areas that, for historical or other reasons, are not at the top of the policy agenda. Just as the PTF is trying to create a new norm of behavior, it needs to base its realistic expectations of change on potential social entrepreneurs within the educational system.

None of this is intended to say that the outcome or the process is unimportant. Indeed, unless the social entrepreneurs outline and achieve a clear set of targets, they would find it impossible to retain the interest or commitment of more than a handful of people. Similarly, unless they adopt a process that is open and inclusive, and which provides opportunities for learning and replication, no effort would spread beyond fairly narrow boundaries. What is being said, however, is that a truer test of a reform effort lies in asking whom it encourages, who will emerge to sustain the process and carry it forward, who will replicate successes and learn from failures, who will apply lessons from one area to another, and what are their agendas, motives, effectiveness, and methods of operation.

The critical questions in such an approach is to ask whether the reform process stimulates, supports, strengthens, informs, brings together, and otherwise encourages a growing community of champions of reform? Are the motives espoused by the members of this community consistent with the overall goals of the reform? Are their methods consistent with these goals? Are their means adequate to the task? If the answers to these questions are in the affirmative, then the reform will be successful. Else, it will be a flash in the pan, and Pakistan has already had more than its share of those.

2.3 Building a Reform Community

How does one build a reform community? Our answer is not very different from one of building and strengthening rural or urban communities. The experience of the vast majority of successful community building initiatives suggests a number of answers: create a support group, develop norms of behavior, identify strategic issues through participatory arrangements, jettison dysfunctional institutions, and focus on the community rather than the government.

- a) **Create a support program for the reform community:** A reform program requires financial, technical, and institutional support. These are not available “off the shelf” as it were. More importantly, the existing system provides perverse incentives for access to such resources. An important first step is the creation of a support group, which undertakes research and analysis, mobilizes financial support, provides technical assistance (including sharing of experiences), neutralizes political opposition, and develops norms of behavior. The Task Force could be formalized precisely as such a support group, either under its existing name, or as the proposed Commission on Higher Education.
- b) **Develop norms of behavior:** If the reform community adopts approaches, methods, and agendas at cross purposes with the overall goal of the reform, the entire initiative will fail, notwithstanding any localized or initial success. The initiative must focus on developing appropriate norms of behavior for this community. In the case of community development, for example, the bulk of the effort has consisted of creating participatory, transparent, and non-hierarchical modes of functioning.
- c) **Identify strategic issues:** A reform process should avoid dissipating its energies by trying to accomplish a laundry list of goals and objectives. Instead, it should concentrate on a selected list of targets, selected on the basis of a single overarching criterion: whether they can attract a broad and growing range of support. One needs to ask whether the selected target will help solve an ‘obvious’ problem, whether there is sufficient experience in the country (or worldwide) to address the problem, whether the proposed solution will generate resources and experiences for addressing other problems (e.g., whether it will mobilize additional financial resources, whether it will stimulate other potential champions of reform to join the effort, and so forth), and whether it will promote debate and discussion that will excite and pull in a growing proportion of the target community.
- d) **Many existing institutions are obstacles to reform:** Existing institutions fall in two categories: some will be helpful or essential to reform, while others could prove to be obstacles. Rather than seeking to revive or reform near-defunct institutions, the better strategy is to neutralize or bypass them, on the one hand by recommending their closure, disbanding, and/or replacement; and on the other hand, by building coalitions that include the more dynamic elements from amongst them.
- e) **Do not pin hopes on political will:** Reform requires political resolve and commitment. At the highest level, such resolve is referred to as political will. However, as discussed earlier, such will has been absent in the past and remains uncertain in the future. Even if it exists, it is unpredictable, unreliable, and liable to dissipation or perversion. It is more fruitful to concentrate at the middle or executive levels, where the potential for support is likely to be more consistent. Here, the problems stem from weak institutional

capacities, opaque governance systems, and a generalized lack of vision. In the case of higher education, this means a focus at the level of the individual university or college.

Accordingly, our perspective on the problem as well as our preferred menu of options is focused almost exclusively at the middle (executive) tier. While we provide some advice on matters that can only be decided by the federal or provincial governments, we do not think that these decisions will be crucial in the future of the educational system. What *will* be crucial are the set of recommendations that can be implemented by the leadership of a single university or college. What would be important is for the advocates of the reform effort—whether they are in political life, in educational institutions, in public advocacy, in funding organizations, in civil society organizations, or in the PTF—to rally behind such efforts, in order that their success is ensured, that the success provides a model for others, and that a virtuous cycle is thus initiated.

2.3.1 A Systems Approach

The key feature of the recommendations of this report is the explicit adoption of a systems perspective. This means approaching the various institutions of education, research, funding, communications and publication, and management, not as a set of isolated structures but as an integrated system. Furthermore, within each institution, the different dimensions of activity—e.g., pedagogical, research, management, fiscal, and political—are all best seen as part of a coherent system rather than separate spheres.

The existing system, however weak and problematic, does serve the interests of a number of people, including some faculty members and university officials, a subset of students, political parties, and patronage politicians and bureaucrats. As such, notwithstanding the broader social and economic benefits that a reform program may promise, it will also impose costs on some who benefit from the existing arrangements. As such, the reform agenda is not a purely technical exercise; it is a social initiative. It involves building consensus, mobilizing gainers (mainly the student body and the more dynamic elements of the faculty) and compensating or persuading those who may fear from it. It involves taking risks and engaging in what is most appropriately called social entrepreneurship.

Therefore, the most significant opposition to reform will come from the incentives that the overall system provides to the individuals who compose the system. Some people have referred to it as a quasi-feudal system, whose purpose is not to provide a service but simply and exclusively to reward those who happen to acquire authority. Although outstanding individuals do find their way into these systems, few survive, and those who do are constantly frustrated by the low quality and indifferent morale of their peers, poor mechanisms for assessment and supervision, and a generalized opposition to change. These people become islands of excellence in oceans of incompetence. While they provide ideal role models, their energy and initiative is thwarted at each stage.

For purposes of this report, we have identified three key areas for reform – institutional governance, curricular reform, and fiscal solvency. These are issues over which there has been a considerable degree of discussion and debate already. As a result, participants in the system are likely to view them as legitimate concerns. More importantly, they are approached in a manner in which the successful achievement of immediate targets will facilitate the creation of a community of reformers. The initiatives suggested in these areas should be taken as a package (or recipe) rather than as a set of choices (or menu). Ultimately, the best measure of the implementation of such ideas would be the emergence of a reform community that becomes both a motor and a monitor for the reform effort.

2.4 The Economic Importance of Higher Education

Let it be said at the outset that education has – and must be seen to have – a value well beyond its impact on the economic development of countries. Investments in higher education are well justified on grounds of their social impacts and their contribution to fostering a just, democratic, and enlightened society.

However, a case can and needs to be also made for the immense economic importance of investing in higher education. Indeed, of all the economic growth initiatives available to the Government of Pakistan, perhaps none holds more promise and the possibility of large scale, and sustainable returns than the reform, funding and expansion of the Higher Education infrastructure in Pakistan. Pakistan's leadership needs to recognize this potential and bring to bear the political will necessary and funding needed. This chapter outlines the tremendous opportunities being created for educated-professionals-based Services exports and provides the economic-growth rationale for transforming higher education in Pakistan.⁷ Pakistan missed the key economic wave of the 1980s: globalization of manufacturing production. Factories producing all sorts of goods, from textiles to sneakers, computer mother boards to VCRs, toys to cars, restructured their manufacturing plants in the US and Europe and moved production to South East Asia. The ASEAN tiger economies of South Korea, Taiwan, Hong Kong, Malaysia, Indonesia, and Thailand, providing good quality factory labor, were born.

Pakistan may have another chance with the new wave of Services-production globalization, which kicked off in the 1990s and is likely to accelerate during this decade. Companies in the US and UK are just starting the restructuring of their domestic services “production facilities” and re-locating them to countries which offer trained personnel and cost advantages. These white-collar “professional services” jobs, from technology development to financial transactions processing, rely on ‘brain power’ (i.e. university educated workforces) and communication links and not much more. Pakistan can compete here. And if Pakistan can match other developing countries, such as India, in producing this ‘raw material’ of university-educated professionals in high enough quality and quantity it can become a ‘Services-export Tiger’ rivaling the growth rates of the fastest growing Asian economies. This, however, should not be seen as a case of ‘picking the latest fad’ but rather an example of one opportunity where investment in higher education could yield very high economic returns. Indeed, if one looks at the example of India and others who have had success in this current and previous waves of global services production, it is striking that the what works is simply having a robust system of higher education. Indeed, a measure of this robustness is the ability of the students being trained to adapt to emerging opportunities and their entrepreneurial confidence in being able to do so.

To highlight the economic potential of investment in higher education, Box 2.1 considers the case of India's performance in this new global services economy. More importantly, Box 2.1 highlights the opportunities that lie before Pakistan and identifies priority actions that would be needed. A key lesson to be highlighted is that to capitalize on this emerging global trend – or on other trends that might emerge in the future – we need to invest in good education rather than just ‘hot’ areas. Armed with basic skill sets and a robust education, students should be able to both identify and capitalize on trends as they emerge.

⁷ According to estimates Pakistan could bring in \$10 billion annually in export earnings and create 500,000 high salaried jobs by 2010 by making a major commitment to college-educated-professionals-based services exports to. This would represent more than double the \$8.6 billion Pakistan earned from all exports in 1999-2000.

Box 2.1: The Economic Potential of Professional Services Export⁸

— Can Pakistan emulate India's Example?

India's impressive growth of 6% average annual growth during the 1990s was built on the large-scale export of software development services. However, that is just one facet of a broad-based professional services export thrust that is expected to keep India's economic growth supercharged for the remainder of this decade. These professional services exports can be broken up into three main categories: a) software development services exports; b) research and development technology services exports; and c) traditional Service-industry professional services exports. A review of all three categories holds important lessons for Pakistan's policy makers and Pakistan's higher education reform initiatives.

1. Software development services exports

According to the *Economist* (May 3rd, 2001: "Back office to the world") the so-called Bangalore effect has resulted in India's software services industry accounting for over \$6 billion of direct exports during 2001 and growing at a healthy 40% even with the economic and information technology slowdown in the US. This achievement took barely 6-7 years from a start of a few million in software development services earnings in the early 1990s. University educated, English-capable, computer scientists provided software development services to US and European clients, often onsite, in those countries. Indian software engineers were the main beneficiaries of US H1-B visa programs, going in tens of thousands annually to take up high paying jobs in the US.

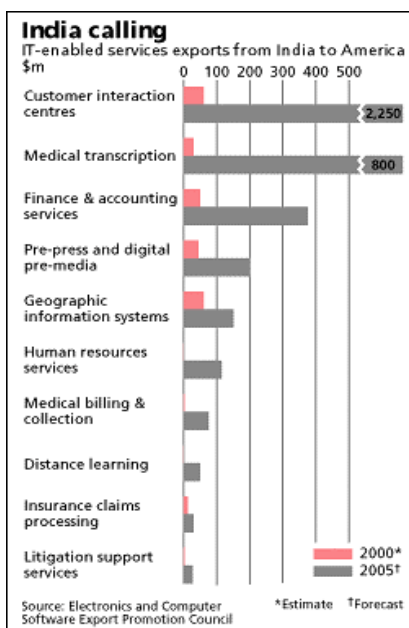
Pakistan should have been able to take advantage of the same opportunities, except for the fact that it lacked the key ingredient India had in generous supply – tens of thousands of well-trained computer scientists. Pakistan produced a few hundred per year to India's tens of thousands. While Indian entrepreneurs tapped their vast supply of university-educated IT professional to provide global software development services Pakistani entrepreneurs had no such luxury. A key failure for Pakistan was its universities' inability to change to incorporate new fields of technical knowledge. As engineering/technology universities in India and the US added large departments of computer science to their degree offerings, Pakistan's engineering and technology universities continued to produce the same mix of civil, chemical and electrical graduates they had always done. Pakistan's very talented graduates missed out on the 1990s global software boom. To the extent, Pakistan did try to ride this wave, it was private sector institutions rather than public universities that tried to respond to the new global demands.

Going forward, Pakistan would need to address three key challenges. First, we must ramp up such newer fields of technical knowledge as computer science to bring up the supply of computer science graduates to a few thousand per year at a minimum, to be able to tap into the global software development services opportunity. Second, we must create large scale programs of mid-career re-training through evening/weekend course work for degree programs that would allow its large supply of chemical, mechanical, and electrical engineering graduates to obtain computer science and other scientific degrees, in view of new market opportunities. Finally, we must reform the whole structure of science and technology university curriculum development and modernization, so rapidly emerging new fields of knowledge, like computer science, biotechnology, and others which would appear later, can be incorporated and new university departments, institutes and curriculum created. This may require, among other things, an organized regular annual review of course and degree offerings in Pakistani universities against course work and degree offerings in such western technology universities, and mechanisms to launch new programs of study and institutes.

2. Research and development technology services exports

Beyond IT, India has begun to tap into a second global opportunity of scientific/technical professional services exports. Leading American corporations have begun to look at India as a source of research and development professional services in a broad set of fields, from chemicals to advanced materials. For example, in September 2000, the General Electric Company opened its GE John F. Welch Technology Centre in Bangalore, India, "to conduct research, development and engineering for all of GE's diverse businesses worldwide" and as "an integral part of GE's global Corporate R&D organization, collaborating with the company's other technology centres – including its U.S. lab in Schenectady, NY." The Centre's launch press release also gave the following details: "Currently, the Centre's team includes 370 scientists and engineers – 75% with advanced degrees – working in the areas of catalysis and advanced chemistry, polymer science and new synthetic materials, chemical engineering/process, advanced Six Sigma and process modeling/simulation, mechanical engineering, electronic and

⁸ A clearer definition of Services jobs is in order before proceeding further. Services jobs certainly include traditional white-collar jobs in Service industries like finance, banking, insurance, real estate, travel agencies, law firms etc. Loan officers, insurance claims processors, travel agents, lawyers, doctors, healthcare professionals are all members of the Service economy. However, service jobs in our definition also include professional and technical jobs engaged in software development or R&D research. Only direct manufacturing-plant-based jobs, predominantly blue-collar, should in our view be considered manufacturing jobs. All else can be considered Services jobs and amenable to "Professional Services" export.



electrical system technology, ceramics and metallurgy, information technology and e-Business. It is expected to grow to 1,200 technologists and scientists by 2001."

Many US and European companies are expected to follow GE's pioneering lead in seeking access to technology and engineering development services in a broad set of technology areas in developing countries that can provide access to large numbers of well educated English-capable technologists and engineers at a fraction of US costs. If GE's announcement is any guide, such design centers will be staffed with scientists and engineers who have advanced degrees (i.e. Masters and PhDs) and are able to communicate effectively with their counterparts in the West. This is an emerging professional-services-export opportunity that should grow to hundreds of millions, or billions of dollars in this decade.

Again, Pakistan's challenge is to evaluate how well it is positioned to compete for these technical/scientific professional services exports. It has English-capable engineers but lacks a university infrastructure for producing quality graduates with advanced degrees in any sizable numbers. Its scientific (as opposed to engineering) departments are perceived to have students of inferior quality and the university curriculum in scientific fields does not adapt quickly enough as new fields of knowledge emerge in the West. Pakistan must rectify these shortcomings to take advantage of technical/scientific professional services exports opportunities.

3. Traditional Service-industry professional services exports.

The most exciting new development, and the most promising one for Pakistan, is the emerging global re-organization of work in traditional Services industries like banking, finance, insurance, healthcare and others. From bank loan processing to insurance claims handling, bill processing to accounting, customer service calls handling to litigation support, centralized people-intensive operations in a whole host of Services companies in the US and UK will be re-structured and globalized in this decade. Such work will be moved to where-ever good university-educated, English-fluent professionals can be found in large numbers at lower cost and linked to the US and UK over modern telecom and computer networks.

Countries like India and Pakistan have a unique edge over other world regions in attracting such jobs because of their English-capable, college graduates, who can be available in large numbers if their universities can meet the challenge of producing enough such graduates in high enough quality and quantity. Indian policy planners already have ambitious plans for this new wave of jobs for university-educated professionals. US consulting firm, McKinsey & Company, is projecting that as early as 2008 India will be generating \$17 billion annually from 800,000 jobs created in this new professional-services-export sector (see *New York Times*, March 21, 2001, "Hi, I'm in Bangalore (but I Dare Not Tell)"). *The Economist*, May 3rd, 2001 ("Back office to the world") published the thinking of India's policy makers in the accompanying graphic, which estimates a rapid rise of various such Services-exports, from a few million dollars in 2000, to a few billion dollars by 2005. Clearly India has ambitious plans to grow beyond its IT and technical/scientific professional services exports base, to incorporate this new rapid growth area of non-technical professional services.

There is every reason for Pakistan to aggressively seek these new professional jobs in this new wave of work globalization. Unlike software jobs, where Pakistan still produces a paltry number of graduates per year, these new Services jobs do not rely on any narrow field of university education. Liberal arts graduates, commerce and business graduates, science and engineering graduates, law and medicine graduates, all could find employment opportunities in the broad spectrum of positions possible in these new Services-export "production" centers, and Pakistan produces thousands of such graduates annually, at least on paper. Pakistan already has the modern telecom infrastructure to link such professional "production" centers to US/UK companies' customers and other operations and can improve this infrastructure with relatively small incremental investments.

In order to be better prepared for these emerging trends, the Task Force needs to articulate quantitative objectives that must be achieved to measure progress towards it. Examples of such goals could include: a) number of students who are able to pass credible international competency tests that indicate if their university education meets internationally expected levels of achievement and quality (including English); and b) number of students who are able to complete their education in scientific, technical, engineering and medical fields, to enable Pakistan to win the highest-value jobs in the new IT and technical/scientific Services-export economy (e.g. 30% of all graduates?). Clear quantitative objectives of this kind will help focus policy makers and university administrators. Needless to say, such goals should be accompanied by concrete proposals for achieving them, bearing in mind the current status of things.

3. Institutional Reform

The existing system of higher education comprises of a number of inter-locking institutions. These include the federal and provincial ministries of education and their attached departments, the offices of the chancellors of public universities (generally the governors or the President), the University Grants Commission, and various universities and colleges. However, a number of closely related functions are being performed elsewhere—including such external institutions as publishing houses, research institutions, tuition centers, examination coaching centers, and NGOs. Within the existing system, our primary focus is at the operational level, namely at colleges and universities. Accordingly, we look at all other institutions ideally as part of the support system for the operational entities. The main problem with the current system is that neither the main entities nor the support system performs very well. We have identified a number of these issues elsewhere in this report. In this section, our focus is on the institutional structures.

We start with the institutional structures of the operational entities, namely public sector universities. The main principles recommended with regard to these institutions are (i) the separation of management from policy and (ii) building accountability and performance-based evaluation/incentives (which are transparent and fair) into the system. These recommendations are based on a close examination of the institutional structures of public sector universities in the US. From this vantage point, we then turn to the situation of supporting institutions.

The first points of call are the two categories of governmental institutions—the ministries of education and the university grants commission. Under the existing system, the separation of policy and management is ensured mainly by entrusting policy matters to government agencies and management to the university syndicates and Vice Chancellors. Yet, many management issues (such as the appointments of Deans and Department Chairs) are in the hands of the Chancellors (Governors) who are advised by the respective ministries. On the other hand, policy issues are in the hands of the management body, the syndicate, and many others simply fall through the cracks.

In place of this system, we propose a different hierarchy. First, we propose that the government institutions be assigned a different role, namely to **support** universities and colleges rather than govern them. This would involve retooling the apex institutions radically. We provide some recommendations in sections that follow. In particular, we recommend the creation of a new support institution, the Higher Education Support Commission (HESC) for performing some of the functions currently assigned to the UGC, albeit with a distinctively supportive orientation.

Second, we propose that **the separation of policy from management** be introduced within the structure of each university explicitly by designating the syndicate as an independent policy making body, and the university management board—comprising of the VC, the Registrar, and the Deans—as the executive body. In addition to these, we also propose a number of changes with regard to the preparation of textbooks and course materials, the conduct of examinations, and the promotion of research.

3.1 Problem Statement: Reform within Universities

At the level of individual universities, structural reforms are required to address the following problems of first-order importance facing Pakistani public universities today:

- a) Inability to attract and retain high quality faculty in sufficient numbers
- b) Inadequate financial support from the Government.
- c) Inefficient distribution of funds within the universities.
- d) Lack of research and development of intellectual property.

Among the major causes of the above problems are some fatal flaws in the governance and management structures of the public universities:

- 1. Absence of accountability and transparency.
- 2. Disconnect between role, responsibility and authority.
- 3. Lack of proper financial management.
- 4. Missing internal and external incentives for research.

Below, we discuss how these flaws manifest themselves in the university system.

3.1.1 Absence of accountability and transparency

The lack of accountability in Pakistani universities is a direct consequence of the flawed nature of the administrative structures in place. The most problematic among these are the appointment of the Vice-Chancellor by the Chancellor with a nominal consultative process, the appointment of the syndicate through a similar process, and the effective chairing of the syndicate by the Vice-Chancellor. In the best cases, these appointments are just not based on performance, and in the worst cases they are based on political patronage or nepotism. Although, in theory, the Vice-Chancellor is answerable to the Syndicate, in practice, he effectively chairs the body. The fact that the Vice-Chancellor is nominated and not elected, and the syndicate similarly constituted, leads to an effective collusion of the power brokers and results in a dysfunctional system.

The Sharif report (1959) notes that "The Vice-Chancellor should be accountable to the Chancellor for the just and proper performance of his functions The VC will be the chief academic and administrative office of the institution." A fatal problem here is that the Chancellor, who is supposed to hold the Vice-Chancellor accountable, has neither the time nor the expertise for this task.

In addition, there is no mechanism for the evaluation of the performance of faculty and administrative staff. Merit plays a minimal role in their advancement.

3.1.2 Disconnect between role, responsibility and authority

Several of the most important positions in the university management have responsibilities inappropriate to their role, with limited authority and for which the position holders are not directly accountable. The fundamental organizational principle here should be that if a person is to be held accountable for his performance, he should have full authority to take decisions within his jurisdiction without outside interference, and his responsibilities must be suited to his expertise.

A glaring example of where the above principle breaks down in the current university governance structure, is faculty appointments. The Registrar is directly involved and is often

the principal decision-maker in the hiring of faculty. However, in spite of this authority, the Registrar has no academic experience for this role, and is neither directly responsible nor ever questioned about the declining quality of the faculty.

Another mismatch occurs in the role, responsibility, authority and accountability matrix during the appointment of Deans and Department Chairs, which are directly appointed by the Chancellor. If the Vice-Chancellor is to be held accountable for the performance of the university, he must also have full authority to appoint Deans and Department chairs, and to hold them accountable for their performance. The principle of accountability should percolate downwards.

Effective administrative structures cannot be implemented without alignment of role, responsibility and authority or without attendant accountability.

3.1.3 Lack of proper financial management

A fundamental structural problem with the current system is that even if fiscal resources are made available, they cannot be utilized properly because of poor financial management. Research funding in universities is, in many cases, controlled by the Head of the Departments who may have little to do with the research being conducted. There is no office dedicated to the task of handling research funds in the universities.

3.1.4 Missing internal and external incentives for research

There are no incentives for faculty to engage in research in Pakistani universities; research has little impact on their careers. The university system does not reward, either materially or in terms of prestige, faculty with superior research credentials. Faculty pay structures are fixed and do not depend on performance.

In addition, universities lack suitable administrative structures to facilitate efforts by faculty members to attract research money. Moreover, there is no direct monetary benefit to a university when a faculty member obtains funds for research. The university is not reimbursed for use of its premises, facilities, and utilities for carrying out a research project. Also, there is no clear mechanism for the protection of intellectual property developed in the universities.

3.2 Options and Solutions: Reform within Universities

This section highlights the options and solutions available for reform *within* the Universities themselves. As noted earlier, it is the University itself that must be the focus as well as the driver of the reform process. Reform will be most meaningful and most potent if it is driven from within the universities rather than from outside.

Before delving into possible solutions for reform at the university level, it is useful to compare the university structure, as it exists in Pakistan, with structures elsewhere in the world. Table 3.1 (next page) presents such a comparison between the organizational structures of Pakistani public sector universities and equivalent structures in US Public and Private Universities. In light of this table and the preceding discussion, let us now consider some specific options for reform. The net thrust of this set of reforms is to make a clear and unambiguous distinction between management functions and policy functions at the university level.

Table 3.1: Comparison of University Organizational Structures

Organizational Structure of Pakistani Public Universities	Equivalent in US Public and Private Universities and key differences
Chancellor The President of Pakistan or the Governor of the Province is the Chancellor of the university, depending on whether the university is a federal university (e.g., QAU), or a provincial university (e.g., University of Punjab). The Chancellor holds an extremely powerful position; he appoints the Pro-Chancellor, the Vice Chancellor, members of the Syndicate, and the Deans.	For some public universities, the Governor of the state has a ceremonial position, such as the "President of the Board of Regents," as in the case of University of California.
Pro-Chancellor Usually the federal or provincial Minister of Education is the Pro-Chancellor of the university. Since the position of the Chancellor is ceremonial, the Pro-Chancellor discharges all the responsibilities of the Chancellor in his absence.	This post usually does not exist in US universities but some of the functions of this post are taken on by the Chair of the Board of Trustees.
Syndicate The Syndicate is the supreme governing and legislative body of the university. The Chancellor appoints all of its members. The key powers of the Syndicate include: <ul style="list-style-type: none"> • Budget approval • Curriculum approval • Promotions and salaries 	Board of Trustees Very similar to the Board of Directors of a company. At least some members of the Board of Trustees are elected. There is almost always a student representation on the Board.
Chairman of the Syndicate The Chancellor is the Chairman of the Syndicate. However, since the Chancellor never attends the meetings of the Syndicate, the Vice-Chancellor is the effective Chairman of the Syndicate.	Chairman of the Board of Trustees The Board elects the Chairman. The Chairman attends all the meetings of the Board.
Vice-Chancellor The Chancellor appoints the Vice-Chancellor. The Vice-Chancellor is the acting Chairman of the Syndicate since the Chancellor and the Pro-Chancellor never attend the meetings of the Syndicate. The Vice-Chancellor is the chief academic and administrative officer of the university.	President The Board of Trustees elects the President. The President is not the Chairman of the Board. The President is the chief academic and administrative officer of the university. Hence, there is a separation between the "legislature" (the Board of Trustees) and the "executive" (the President).
Pro-Vice-Chancellor Pro-Vice-Chancellor, if present, assists the Vice-Chancellor in his duties. Pro-Vice-Chancellor is appointed by the Vice-Chancellor.	The equivalent duties of these posts in the US system are divided between various posts that assist the University President in different areas. These include:
Registrar The responsibility of the Registrar is to interpret/enforce academic and administrative policies as well as prepare institutional reports. In the Pakistani system, the university administration is run primarily by the Registrar who also has overarching powers on academic matters. The Registrar even controls the hiring, firing, and promotion of faculty.	Provost (Vice President Research & Academics) The Provost is the Chief Academic Officer.
	Vice President Administration and Finance The VP Admin & Finance is the equivalent of a Chief Operating Officer in a corporation.
	Vice President Student Affairs The VP Student Affairs is in charge of the student affairs and student life.
Deans The Chancellor appoints the Deans.	Deans The Provost appoints the Deans
Heads of Department The Dean appoints the Heads.	Heads of Department The Dean appoints the Heads.

3.2.1 Elimination of Direct External Governance

Public universities should not be under the direct control of the Government. Benefits from doing so are outlined below:

- a) This will allow the universities to institute reforms suited to their particular needs, which would otherwise be difficult in a centrally controlled environment.
- b) The government can foster a competitive environment in which a university's performance is directly tied to increased financial benefits. Financial incentives, such as tuition vouchers and performance-based grants, can provide motivation for public universities to encourage research. This is further discussed in Section 3.3.4.
- c) This will also allow public universities to adjust salaries for their faculty and staff based on performance.

Many of the reforms proposed here would be difficult, if not impossible, to implement if the government maintained its direct control over the administration policies of universities.

3.2.2 Accountability and Transparency

The Syndicate

The governing body of a public university should be a Board of Trustees or Syndicate, with the following roles:

- Formulate the policies and the operating procedures for the university.
- Act as a buffer between, and be accountable to, both the public and the Government regarding the performance of the university.
- Hold the university management accountable, in particular the Vice-Chancellor and the top level administration, for performance in implementing the policies and achieving the goals of the university.
- Play only a minimal role in the academic affairs of the university.

The Syndicate should include distinguished individuals from academia, industry, public service, faculty, students, and alumni. It should have a sufficient number of members to minimize any opportunities for collusion. An electoral college should elect the members of the Syndicate. The electoral college could include members of the existing Syndicate, faculty, students, alumni, and possibly members of the legislature. The Chairman of the Syndicate should then be elected by members of the Syndicate. Financial incentives for members of the Syndicate should be designed to reduce incentives for corruption and collusion. These financial benefits must be available for public scrutiny.

Separation of university governance from management

The separation of the university governance from the management should be maintained at all costs. In addition to the Chairman of the Syndicate, the Syndicate should also elect the President or the Vice-Chancellor of the university. The offices of the Chairman of the Syndicate and the Vice-Chancellor should under no circumstances be held by the same individual. The role of the Chairman of the Syndicate is to direct the activities of the board, while the role of the Vice-Chancellor is to implement the policies of the Syndicate. The Vice-Chancellor must have an academic and research background and should be a respected member of the academic community. The Vice-Chancellor should be accountable to the Syndicate in the same way as a corporate Chief Executive Officer (CEO) is accountable to the Board of Directors of a corporation. The Syndicate should in turn be accountable to, and should in fact represent, the public in the same way as the Board of Directors of a corporation represents the interests of its shareholders. In order to increase transparency,

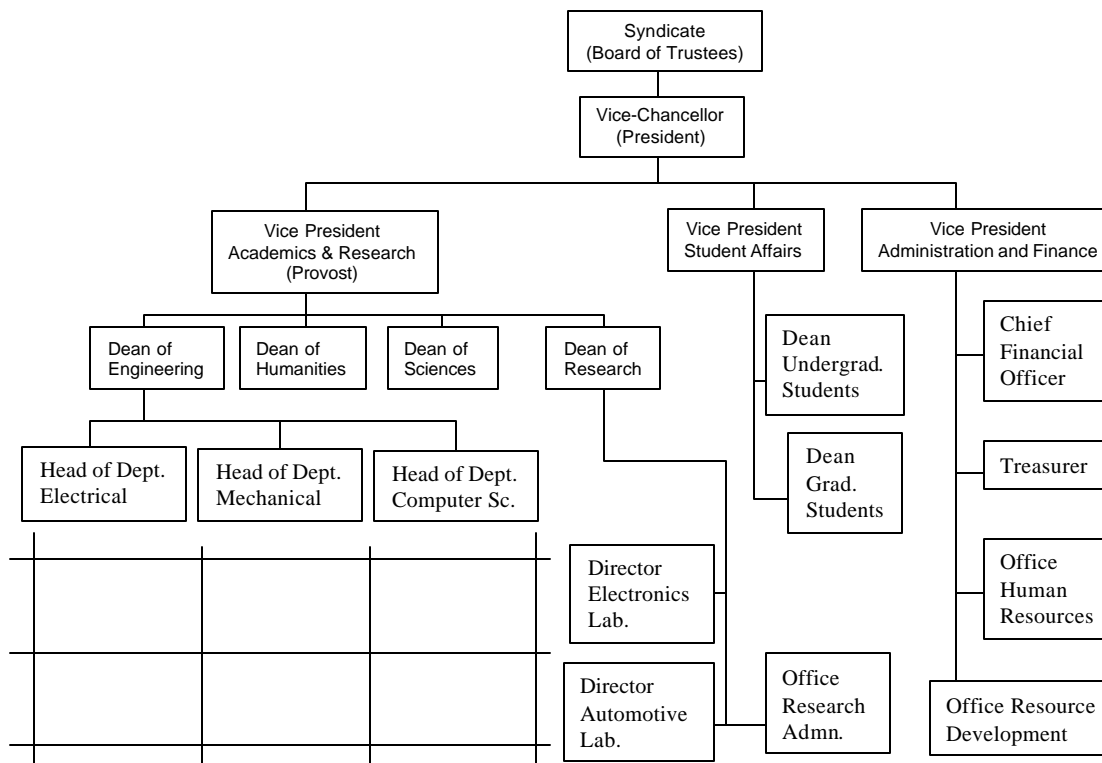
bi-annual reports should be published by the Syndicate on the performance of the administration and the university.

3.2.3 Connecting role, responsibility and authority

Appointments of senior administrative staff: Effective management requires that individuals holding office in an administration be held accountable for carrying out their responsibilities. In addition, if an official in the executive is to be held accountable, two prerequisites are necessary: his responsibilities must be suited to the position, and he must be given full autonomy in carrying out his tasks. This includes, for instance, the authority to hire/fire individuals working for him. The Vice-Chancellor should therefore appoint the principal officers of the university administration, such as the Registrar and the Pro-Vice-Chancellor, by recommending them to the Syndicate. The Vice-Chancellor is expected to hold these appointees accountable for their performance. Similarly, this principle should percolate downwards. For instance, the Registrar must have control over the hiring/firing decisions for the layer of administration below him, but not for faculty appointment, a decision that does not suit his role or expertise.

Faculty appointments and promotions: Decisions related to the recruitment of the faculty and their promotions should be handled by the faculty themselves. The administration should simply play the role of a facilitator. New faculty should be selected with the help of a search committee that consists of senior faculty members and is approved by the Department Head. Under no circumstances should it be possible for a senior administrative staff member to hire new faculty directly and bypass the faculty search committee. The permanent appointment of the faculty members should be strictly based on the tenure system as used in the universities in US. The Head of the Departments should be held accountable for the performance of the appointed faculty in research and education.

Figure 3.1: Recommended Organizational Structure for a Pakistani Public University



Systems for the evaluations of faculty/staff performance: Implementation of accountability necessitates that there exist systems for the evaluation of the performance of faculty and administrative staff. It is also necessary to link promotions and increases in salary to performance. The evaluation of faculty and staff members should be carried out by respective committees of senior faculty and staff members.

Proposed administrative structure: An example of a university administrative structure incorporating the ideas discussed above is shown in Figure 3.1.

Key positions in the proposed administrative structure are those of the Vice President of Academics and Research (Provost), the Vice President of Student Affairs, and the Vice President of Administration and Finance (see Figure 3.1). This executive team should be nominated by the Vice-Chancellor (President), but approved by the Syndicate. The VP of Academics and Research must have an academic and research background. The VP of Administration and Finance must have a management/business background. These three administrative figures should be given complete authority over all the resources allocated to their respective branch of the administration.

The other novel feature of the organizational changes suggested above is a matrix structure tying inter-disciplinary research and faculty appointment by means of a system of inter-departmental laboratories. This has direct implications for the ability of the university to attract good faculty and retain them as well as to attract external research funding.

3.2.4 Proper financial management

The issues related to the fiscal management of university resources are discussed in detail in chapter 4. Below, we emphasize only the structural changes in the administration necessary for improving financial management and strengthening research.

Structural changes for financial management

To increase the capacity of the system to absorb financial resources and decrease wastage, the administration must appoint a suitable person as the VP of Finance and Administration, with an adequate business background. The main goals here are to implement a system that is:

- a) Transparent: The university's budget and actual expenses should be available to the public annually, published in hardcopy and on a web-site, in an easily accessible format.
- b) Fluid: Bureaucratic hurdles must be minimized in the dissemination of resources within the university, and the acquisition of necessary assets for education and research.
- c) Equitable: Resources should be disseminated based on clearly pre-defined and pre-agreed criteria and fairness must be maintained at all costs. For instance, if research funds are made available, it is imperative that the criteria for allocation of these funds are publicized well in advance and the rules described adhered to strictly.

Office for the administration of research

The university should set up an office of research administration to present a "one window" operation to the outside world for research to be conducted on the university premises. This office should:

- Help faculty carry out contract negotiations.
- Ensure that budgets submitted are realistic and include university overhead charges.

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- Protect intellectual property developed as a part of the research.
 - Audit expenditure of contract funds.
 - Generally help the university researchers in contract administration, financial management, and legal issues.

3.2.5 Internal and external incentives for research

Structural changes to make universities more active in research are discussed below.

Universities should impart education in two ways: (i) formal coursework in the academic departments, and (ii) research in the research labs. These two pillars of university education form a matrix structure as depicted in Table 3.1. The academic departments are the columns, and the research laboratories are the rows. The main faculty of the university must belong to at least one department and one research laboratory.

Research laboratories should not be aligned along departments, but cut across them. They should be aligned along existing and emerging technologies and industries. For example, a university may have an automotive lab with faculty members from the mechanical, electrical, aeronautical, and chemical engineering departments. Research laboratories can be a great source of revenue for the university, both in terms of research funding and technology licensing. Research laboratories will also help students develop the connection between technology, research and entrepreneurship.

Universities should be compensated for the use of their facilities and premises for research. The principle of “university overhead” must be developed, and the overhead costs must be included in all the research grants made to a university. The overhead may be calculated as a fixed percentage of the total research grant excluding equipment charges. Typical research overheads in US universities range from 35% – 55%.

3.2.6 Some Caveats

This section has proposed basic structural changes to address some major problems in the governance and administration of Pakistani public universities. However, some key caveats also need to be noted.

Many recommendations proposed here are intricately linked and need to be implemented as a package. For instance, it makes little sense to talk about accountability without autonomy, which in turn is difficult unless the university is appropriately de-linked from the government. The difference between the transitional reform phase and the steady state institutional functioning might need to be explicitly taken into account. For instance, until the time the reform process gains momentum in a university, the Syndicate may need to be appointed instead of elected.

3.3 The Role of Support Institutions

While the key focus of the reform effort must be within public sector universities, this alone would not be enough if other related institutions were unable to support the public universities, or were acting in a counter-direction. Indeed, robust support institutions – including the Ministry of Education, the University Grants Commission, the various Boards of Examination, and the various Textbook Boards – play critical roles in the Higher Education

system and any reform effort will be deeply influenced by their response and contribution to the reform process. This section will briefly consider the role of key support institutions.

3.3.1 Ministry of Education

The Ministry of Education has long suffered from many problems. At one level, these stem from the distinction made during colonial days when the imperial government introduced the principle of *diarchy*. Under this principle, four “serious” subjects (finance, foreign affairs, defense, and interior or police) were retained by the representatives of imperial authority, i.e., the Viceroy, the Governors, and the civil bureaucracy. The rest (including education, health, public works, sanitation, and such) were ceded to the authority of the elected legislatures and their representative Ministers. In other words, government has viewed some subjects as critical to the effective *functioning* of the state, and others as the opportunity for dispensing patronage and acquiring clients—and thus sustaining *populist legitimacy*. As a result, professional bureaucrats in the patronage ministries survive only by becoming complicit in the politics of patronage. Those who resist such assimilation are unpopular, distrusted, and faced with hostility and non-cooperation from their peers. Those who do survive and prosper despite these odds do so by finding “technocratic” niches, in which they do not get in the way of the patronage system. To this day, the political history of Pakistan can be interpreted as a relentless struggle over the control of items on the core list and the casual neglect of the items on the peripheral list.

The upshot is that **there are many potential champions of reform in the educational system, but they tend to be marginalized by the system**. There is even a sense that the system as a whole will inevitably be the enemy of the effort. This suggests two approaches. Either, there should be a support for the initiative by the ministry of education to reform its system of governance. This is difficult but not impossible; however, it may involve bringing about radical changes in the structure, personnel, and functioning of the ministry, including the erasure of the memory of informal processes and mechanisms for decision making. If the current internal reform program initiated by the ministry meets with serious obstacles, the government should seriously consider simply closing down the ministry. This will certainly create considerable disruption, most probably only at the provincial level—given that education is a provincial subject under the constitution. However, even at provincial levels, it would be possible to spin off the functions of the ministries into autonomous and self-governing arrangements. At this moment, we will leave this as a somewhat radical suggestion for further exploration.

Notwithstanding what is decided as to the fate of the government ministries, it is clear that **the reform agenda must be to built around an alternative coalition with different norms, practices, and goals**. These norms would replace patronage with merit, collusion with transparency, and indifference with accountability.

A word or two on patronage issues may be in order here. The patronage potential in government lies mainly in the appointment and transfer of personnel, allocation of funds, disbursement of benefits, and selection and certification. In the education sector, while there is no overt evidence on the issue, it is widely alleged that transfers and appointments of primary and secondary school teachers are routinely made on the basis of influence. Indeed, several government agencies have often expressed concerns that many appointments are only on paper, and that many ‘ghost’ schools do not even exist in reality. At the level of higher education, the very visibility of the institutions and faculties makes such miscarriages unlikely, even if an occasional scandal might make its way into the media from time to time. However, at this level too, the patronage orientation expresses itself in the adoption of soft options, whereby individuals who are not likely to rock the boat are

preferred for executive positions. Similarly, there are allegations of acquiescence in cheating and other malpractices in examinations, which have a direct bearing on the quality of the certification. Finally, governments routinely dispense other benefits—such as scholarships, training opportunities, and admissions. Wherever these are not entirely transparent or are not supervised stringently, there is a potential for patronage. The internal reform program of the ministry of education needs to close these sources of patronage in order to turn the system from its current state towards an explicit and forthright commitment to merit and excellence.

An important step would be to remove all such authority from the ministries, and entrust it to **a fully transparent structure**. A central issue here is the appointment of Vice Chancellors and Principals of universities and colleges, respectively, and the appointment of the Chairperson of the University Grants Commission (or any successors or heirs thereto). Currently, this is an opaque process, handled by the respective ministries of education and the governing bodies of the universities. The PTF has already recommended that a separate process be put in place for the appointments, which should go through the proposed Commission on Higher Education, and be more transparent in nature. The tenure of the incumbents should be longer than the current three years; it should be renewable, and individuals should be selected at younger ages (say, in their 40s).

Finally, the ministry is responsible for protecting and advancing the interests of the educational agenda and of educational institutions and personnel at the highest level. This includes ensuring that the requisite functions get an adequate share of the annual budgetary outlay, and that development programs are prepared and submitted for funding in a timely manner. This function is not readily transferable to other organizations, and some mechanism would have to be put into place to discharge it properly.

3.3.2 University Grants Commission

The University Grants Commission (UGC) was established to undertake quality control and maintain standards in teaching, examination, and research in higher education. The record on all these issues is far from satisfactory. The UGC is supposed to act as a typical donor: providing financial support (i.e. grants) in order to obtain adherence to quality criteria. The quality control functions also include accreditation, and guidance on syllabi and research. None of these is done well, and some might not be needed at all. The UGC's approach is built upon the mythical concept of uniformity.⁹ However, in Pakistani higher education (as elsewhere), uniformity is a myth. The quality of education everywhere depends upon the institution one attends. Quality and equality are polar opposites in a way. Rather than seeking to impose an unrealistic notion of uniformity on what must inevitably be an uneven terrain, it would be better to ask how to use this diversity to advantage. This point has been recognized by the Task Force Report, namely that developing countries (like others) need a diversity of institutions that provide an equally diverse choice of the type and quality of education. Instead of imagining a uniform quality, it would be useful to ask how to make use of the diversity in quality. A more creative response to this problem will include other means of improving quality—support for capacity building, being more responsible in

⁹ The myth of uniformity originates from a number of legitimate concerns. First, the educational system is a signaling device, and therefore the society needs a means of evaluating the comparative quality of different institutions. The mythology in Pakistan is that all degrees are equal irrespective of the institution that has awarded them, and that this equality is guaranteed by the common syllabi and other accreditation requirements. This myth, which is not at all mirrored in prevailing perceptions, needs to be challenged. A second reason for uniformity is concern about inequality. Inequality generally means class-related inequality, with rich students going to rich schools and therefore getting an easier access to economic and social opportunity. This reasoning led Mr Bhutto to nationalize private colleges; it did produce a leveling-off of the quality, but by bringing everyone to a lower level.

making appointments to these institutions and so forth—and other means of providing equitable access to unequal institutions, e.g. through scholarships to talented students.

Let us now look at some of the practices that UGC has introduced in this regard. The first of these is guidance on **syllabi**. The UGC and Pakistani universities treat the entire curriculum as if it were the core curriculum. In the first instance, we need to distinguish between core courses, the core curriculum (which covers a slightly broader menu of courses from which students will be able to select), and optional or selective courses (which will be developed and offered by individual teachers). Furthermore, we need to ask who is best qualified to determine the relevant course materials. It is not clear why a national institution should perform this function. We could switch entirely to a system of allowing each university to establish its own system as long as they were committed to full disclosure (i.e. all institutions are required to make their syllabi and course content publicly available preferably through their websites). The disclosure would enable an independent institution, including the market to assess quality and relevance.

On the issue of **accreditation**, what the society (i.e. students and their parents) and the economy (i.e. employers) need is a more refined tool than the one currently being used. The current tool is a binary one (i.e., a yes or no decision, accredited or not accredited) while we need a graded tool (i.e. some indication of the quality of education), analogous say to the star system for hotels and restaurant. Unfortunately, no one has any confidence that a public institution would be able to provide this judgment. It is probably more difficult for well-meaning and good quality institutions to receive accreditation than those that are of weaker in quality but know how to work the system.

On **grant making** also, the UGC has functioned very passively, i.e. by relying exclusively on budgetary allocations. It has not helped universities develop a more adequate fiscal basis, e.g. through using land-grants, bilateral grants, grants from philanthropic foundations, alumni contributions, tuition fees, commercially viable courses, and consulting or other quasi-commercial operations. What would be useful is a creative institution that takes as its goal the restoration of fiscal solvency of higher education institutions by providing them with technical assistance to achieve the objectives.

On **research**, the less said about the UGC's contribution, the better. It set up something called the Pakistan Council of Social Science Research (PCSSR) a defunct organization that does not have any output to its credit. Again, its own lack of quality is a major impediment, as is the lack of familiarity of most of its staff members to the value or methods of good quality research. The best way to proceed is to hand over the PCSSR to the leading researchers of the country (not those deemed to be researchers by the Ministry of Education or the UGC), with clear terms of reference, mechanisms for selection of the Council's executive committee (or some such), and dedicated funding.

In sum, while there may be a need for a national institution to monitor and ensure quality control in higher education, it needs to take a systems approach to its task. In particular, it must instill a quality ethos and quality-related goals for its own functioning, and broaden its menu of options to ensure that it mobilizes other mechanisms and other functional groups to fulfill its objectives. The government needs to become more responsible in making senior appointments. Again, the way to accomplish this goal is quite simple, and may need simply the constitution of a reputable national panel – possibly co-chaired by the Co-Chairs of the Task Force -- to recommend names for appointment to all senior educational posts. The best option may be to abolish the UGC altogether, disband its staff, appoint a new **Commission on Higher Education** which could start afresh to take on the tasks discussed here.

3.3.3 Institutions for Examination and Testing

Examination, of course, is a huge subject with implications at every level of the system. In this section, however, we will focus on the examination system at the level of 'entry' into the university. This is of particular importance because it regulates the quality and preparedness of the students entering the higher education system. Moreover, many of the general principles guiding our proposals also have relevance at other levels.

There is, and has been, a rather elaborate system of testing and examination aimed at 'screening' students going into the higher education system. Indeed, Pakistan has a number of testing systems running concurrently. These include the examinations administered by the regional Boards of Intermediate and Secondary Education (BISE), the degree examinations conducted by universities, the GCE O levels examinations, the annual superior services examinations conducted by the federal and public service commissions, the military entrance examinations conducted by the Inter-Services Selection Board, and the various examinations offered by the ETS. Of these, the only ones where there is a visible deterioration of quality are the examinations conducted by the BISE and university authorities. Unlike these, the public continues to have a high degree of confidence in the domestic public service exams (for civilian as well as military employment), as well as the international examinations. This public acceptance pertains to both multiple-choice examinations (e.g., by the ETS) and essay examinations (e.g., O levels). The public service exams generally combine essay and multiple-choice formats (with detailed interviews). The point to be underscored is that the distinction does not lie in the format of the examinations but in the resources invested in the examination system, and also the scale of the problem. Therefore, the resulting discussion – which is centered around an ETS-style national testing service and an emphasis on using a multiple-choice format to test all students – essentially misses out on the key point.

The main problems stem from widespread cheating and corruption, the misuse of political influence, favoritism, a poor resource base, mismanagement, and inadequate mechanisms for supervision and monitoring. The result is that the certification process has little, if any informational content. Most end-users of the certificates, namely potential employers as well as college admissions officials have perforce created alternative screening systems. For example, both LUMS and AKU have their own admissions tests, which they use virtually exclusively to make admissions decisions (i.e., without placing too much weight on the results from the formal education system).

In general, the quality and informational content of examinations and certificates depends directly on the volume and quality of resources invested in the examination system, and inversely on the number of students tested. This transforms the problem somewhat. It seems that the problem with the BISE and university examinations is at least initially one of a low resource base and a large consumer base. Having said this, the problem is also (at least secondarily) one of poor management and information systems. But this is a circular problem. The management problems cannot be solved without more resources, and more resources would appear to be a waste of time if the management continues to be as slipshod as at present. Nevertheless, it has to be noted that the scale problem is quite fundamental. One cannot extrapolate from a public service commission experience, which tests thousands of candidates every year to a BISE, which tests tens of thousands if not hundreds of thousands.

The question is not one of trying to predetermine or fix the format of the examination or creating one or more new agencies; it is of providing incentives for improvements in quality of the existing systems.

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- First, **all public examination and certification systems should be made autonomous**. This is already the case for the BISE, as well as the public service commissions. It should be done for the centralized university examination systems as well. These need to be spun off as independent institutions. This does not need to be a unified national decision. Every university could have the option of deciding unilaterally to shed this function and spin it off into a separate activity managed independently, with its own accounts and bottom lines, its own record keeping arrangements, and its own procedures for allowing students to take the examination.
 - Second, **all testing systems should be placed under the supervision of independent boards**, comprised of the potential users of the certificates. For example, the BISEs should be placed under independent governing bodies, which are comprised of the admissions officials of key universities and colleges as well as ISSB officials. Similarly, the university examination systems should be placed under governing bodies comprised of public service commissions, chambers of commerce and industry, scholarship giving organizations, and such.
 - Third, **the examination systems should be self-financing**. In other words, their fees should cover the costs of administration, supervision, information management, research, testing, grading, and examination preparation. In order to ensure equity, examination fees for low-income students should be covered by scholarship.
 - Fourth, **the income and earnings of the staff of examination institutions should be competitive** in nature in order to enable them to attract high quality resources.
 - Fifth, **the different examining bodies should be encouraged to compete with each other in order to provide incentives for quality improvements**. One way to do this, for example, is to allow every student in Pakistan (and even abroad) to sit in the examination offered by a BISE or university, provided that he or she has attended an educational institution in a comprehensive national list. Thus, for example, if the Sargodha BISE acquires a reputation for excellence, employers might well provide greater credence to the results from this Board, and as a result, better quality students might have the incentive to sit in the examinations offered by it. Similarly, colleges and schools might begin to encourage the best of their students to take the Sargodha exam, because good results from that exam would reflect well on the institution. This is no different than what is happening in the case of the GCE exams. However, it would be at a lower national and individual cost. At the moment, this is impossible, since only the students from institutions that are accredited to the Sargodha Board can take the exams offered by it. Such a scheme might also encourage other testing centers (e.g. LUMS) to offer their own exams, which could then become a standard of quality.

Again, a national decision on this is not necessary. All it requires is for the newly independent examination board to decide open its doors to all students who have attended an institution of higher learning anywhere in the country. As more and more institutions exercise such an option, the country could end up with several independent and competitive examination services. In the end, it is quite possible that all but one or two drop out because of the lack of student interest. The testing service could continue to be based on the existing arrangements rather than the multiple-choice system if the former is more consistent with our national capacities and competence.

3.3.4 Other Institutional Issues

While there are many other issues related to support attention that would also need some attention, let us flag two other issues that require additional thought:

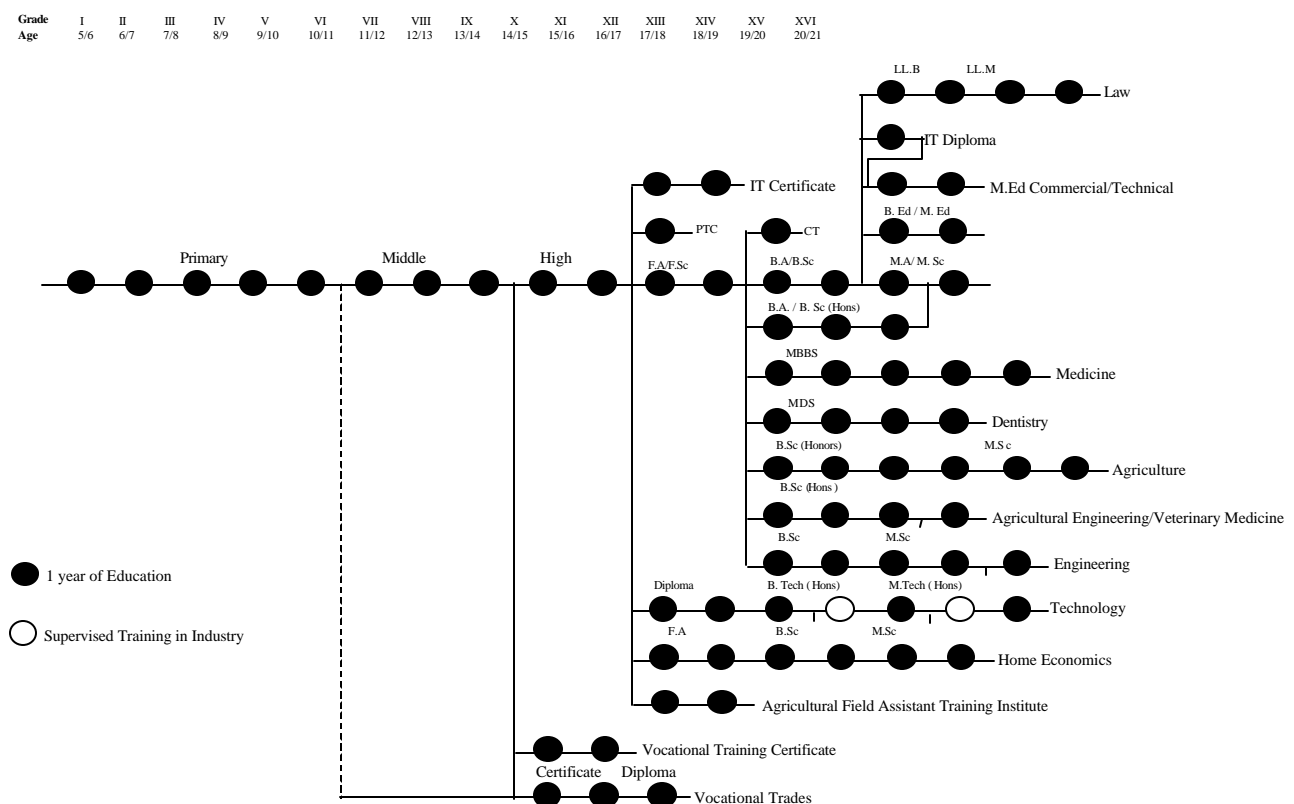
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- First, the situation of **textbooks and course materials** in Pakistan is quite dismal. At the secondary level, some texts are prepared under the auspices of the various textbook boards. These are uniformly of the poorest quality imaginable, and but for their monopoly power would not have any readership. At higher levels, most courses use imported texts that are both high cost and lacking in local content (and therefore likely to be viewed as irrelevant to social needs). This is in spite of the fact that the student body in Pakistan provides a huge potential market for the producers of good quality textbooks. This market needs to be tapped and developed. A practical recommendation is to **abolish the textbook boards and replace them with independent review and rating agencies**. At the same time, leading publishing houses could be invited to commission and market textbooks for various classes. This would create market incentives for publishing houses, academic scholars, and book reviewers and critics.
 - A second, distinct issue is that of **student discipline**. The rise of student militancy, dating back to the 1980s, and the associated phenomenon of the active involvement of political parties in student affairs, has led to a deteriorating situation. University and college administrators are fearful of students, partly for genuine security reasons (since many student groups are well armed and dangerous), and partly for their career concerns, given the strong links between student groups and powerful politicians. A common view of this problem is that the only response is to entrust university administration to retired military officers, who are then expected to treat the students as subalterns. While some of the worst excesses have indeed been curbed through this practice, the inadvertent side effect is the deterioration in the quality of the very service that a university has to offer, namely high quality education. In recent years, there have been celebrated cases of senior and highly regarded university professors being fired by “tough” administrators, in one case because the professor wanted to use a heater in his room, and in another case, because of a newspaper article written by him. Our view is that this is a matter not of *discipline* but of *commitment*. In all cases where students expect and receive a high quality education and where they perceive the university as having an interest in their long-term welfare, there is very little student unrest. However, where the quality of education is indifferent or irrelevant to the social and economic needs of the students, and where the university expresses no commitment whatsoever to improving the lives of the students, there is no commitment amongst students to the reputation or peacefulness of the university either. As such, we believe that one of the most important interventions in this area is the **establishment of a career counseling service**, which takes responsibility for student placement (including counseling on further education), advises the faculty on market trends, and ensures that the curriculum development responds to student and market concerns. Second, there is an urgent need to involve students more fully in the reform effort, namely in building up the brand image of the university, from which they would also hope to benefit in the long run. Among other things, this calls for the reviving of the tradition of student newspapers and magazines in order to provide an outlet for creative talent, train students in writing and creative thinking, and create a forum for the exchange of views and opinions.

4. Curricular Reform

The proposals contained in this chapter seek to build upon the recommendations of the TFHE report,¹⁰ which draws attention to the curriculum *system* rather than individual curriculums or courses and uses as a central element the idea of general education.

Such a shift towards general education would make the system more compatible with international practice as many countries are engaged in introducing similar reforms, not only as a means of providing their students with exposure to a broad range of common subjects, but also creating an appropriate and robust base for scientific education. Also, there is a need to build bridges across the various divisions that crisscross Pakistani society in general and the educational system in particular. The idea of a general curriculum, aimed as it is in providing a base or platform for specialized educational approaches—whether they are in electrical engineering or theology or philosophy—can help to build such bridges.

Figure 4.1: Pakistan's Higher Education System



Adapted from: Ministry of Education, Action Plan for Educational Development, 1994, p115

¹⁰ "Higher Education in Developing Countries: Peril and Promise" (Washington DC: World Bank, 2000), the World Bank Task Force on Higher Education.

4.1 Problem Statement

The existing system of higher education neither trains students to participate adequately in the economic, social or political life of the country, nor is geared towards the creation of the good society as envisaged in the vision statement of the PTF. To wit:

- 1) The practice shows **scant regard for changing demand patterns, or for the social or economic prospects of graduating students**. The job market has changed completely since the system was put into place in the 19th century to produce a limited number of entrants into the colonial public service. Today, the vast majority of the college graduates have to find employment in the private sector (both profit and nonprofit) or create business opportunities for themselves. Yet, there is no training in skills (e.g., entrepreneurship, communication, or marketing) that are required in this changed market. It could be argued that since there is excess demand for the product that the institutions do offer, they are not doing badly. However, this would be a serious error. The excess demand reflects simply a monopoly situation. Anyone who can manage to enter into another system within or without the country does so without hesitation.
- 2) The program structure **forces students to specialize very early on in the process**. Indeed, the specialization happens well before they are in the University system because they have to choose between 'Arts' and 'Science' and even within the later between 'pre-medical' and 'pre-engineering'. The result is that they learn little about other key areas of social and economic relevance. Moreover, given that students are divided by departments very early on, introducing new subjects becomes very difficult.
- 3) The system is **based on a false hierarchy between the natural sciences, the social sciences, and the humanities**. The result is that students in one field learn virtually nothing of the other two. Engineers, doctors, physicists, chemists, and geologists have no more than a rudimentary exposure to economics, philosophy, literature, politics, or music. Economists and political scientists are equally ignorant of the basics of scientific thinking. The humanities attract only those who fail to get admission anywhere else.
- 4) The system is **not rooted in the cultural or political realities of the country or the region**. There is very little interest in the history of thought in South Asia.
- 5) **Curriculums are designed centrally**, which makes it difficult to introduce emerging concerns or tools into the educational system. Textbooks are poorly designed and inadequate in quality as well as content, partly because of the absence of the private sector in the process.
- 6) There is **no effective system of quality control or standards**. Under the existing system, the University Grants Commission (UGC) is supposed to set and protect standards. But the quality of the UGC itself as well as its capacity for monitoring and enforcing standards is quite weak.

The response has to come at many levels, including curriculum reform, improvement in management systems, introducing career counseling, involving potential employers in the governance of educational institutions, and improving the examination system. In this section, we look mainly at the issue of curriculum reform.

4.2 Options and Possible Solutions

Curriculum reform is the subject of discussion as well as experimentation around the world. The TFHE report provides extensive guidance on the subject. In Pakistan, the best course of

action would be to build a reform program on the basis of this guidance. In particular, the TFHE lays out four goals:

- 1) Provide increasing numbers of students, especially those from disadvantaged backgrounds, with **specialized skills** – specialists are increasingly in demand in all sectors of the world economy.
- 2) Produce a body of students with a **general education that encourages flexibility and innovation** – allowing the continual renewal of economic and social structures relevant to a fast-changing world.
- 3) Teach students not just what is known now, but also how to **keep their knowledge up-to-date**, so that they are able to refresh their skills as the economic environment changes.
- 4) **Increase the amount and quality of in-country research** – allowing the developing world to select, absorb, and create new knowledge more efficiently and rapidly than is currently the case.

4.2.1 The Need for General Education

The idea of general education is an alternative to the current practice in Pakistan (as well as many former colonies) of forcing early specialization. The TFHE acknowledges that its advocacy of general education may appear controversial at a time when the world seems to be moving towards greater investment in scientific and technical education. However, it provides an elaborate argument about why general education is essential for developing countries.

- 1) Both industrial and developing countries need leaders, educated citizens, and trained workers for industry, government, politics, and academia. A liberal education enhances the chances that individuals [especially women] will be able to fulfill these roles with distinction.
- 2) General education also has a clear practical impact on a society. It stops students becoming balkanized in narrowly focused disciplines, fostering cohesion across cohorts whose more talented and motivated students are familiarized with a core body of knowledge, some of which is unique to their own culture and some of which is universal.
- 3) General education also promotes civil society through its contribution to broad-mindedness, critical thinking, and communication skills, all of which are essential elements of effective participatory democracy.
- 4) General education is also important in the development process. It helps society look at the social and ethical questions raised by new development policies and projects, ensuring a country's long-term interests are given priority over short-term gains.
- 5) Finally, better general education may help reduce the brain drain. Providing in-country general education is less expensive than sending undergraduates abroad.

The TFHE Report defines liberal or general education as *"a curriculum [or part of a curriculum] aimed at imparting general knowledge and developing general intellectual capacities in contrast to a professional, vocational or technical curriculum."* It is characterized by its focus on *"the whole development of an individual, apart from his occupational training. It includes the civilizing of his life purposes, the refining of his emotional reactions, and the maturing of his understanding of the nature of things according to the best knowledge of our time."*¹¹ These words were written over 50 years ago (today one would use more gender-neutral language).

¹¹ José Ortega y Gasset, *Mission of the University* (London: Kegan Paul, Trench, Trubner, 1946), p. 1. The quotes are the introductory words of Leo Nostrand, the translator.

Introducing the general education system would mean an agreement on a core curriculum, with which every student would be expected to become familiar. It exposes students to various schools of thought, helping them understand how the physicist, the biologist, and the historian approach problems, and establish connections between all human knowledge. Students select their core area of study, but are also obliged to select courses from an area outside their field. In general, students are expected to select and balance courses in writing, history, humanities, social sciences, and natural sciences and mathematics. The graduates of the general education system will have an option to pursue their careers as academicians and researchers in specialized disciplines such as chemistry, computer sciences, biotechnology, etc. by joining the existing M.Phil. and Ph.D. programs.

4.2.2 General Education Options

Following the recommendation of the TFHE report, Pakistan could do well to initiate a process of discussion and debate on the pros and cons of introducing general education. An informal and somewhat diffuse process along these lines has long been in place, and there is considerable public debate over the costs and benefits of various options. However, neither the government in its entirety nor a university or college has initiated a formal process in this regard. At this point, *our main recommendation is that a formal process along these lines be initiated.* To facilitate this process, we provide some concrete recommendations and a plan of action. The ultimate purpose of these, however, is to get this discussion started in order that a decision can be reached. Below we summarize some of the key points:

- 1) It must be realized upfront that establishing the system as well as **introducing the core curriculum will take time.** In Singapore, for example, the process was started in 1997 and announced in 1999. While this could be a task of the UGC or the Commission on Higher Education, it is possible for one or more universities to do so unilaterally. Within Pakistan, the discussion can borrow from the thinking that has already begun on this issue in relation to the proposed Faculty of Arts and Sciences at the Aga Khan University.
- 2) In Pakistan, the situation is complicated by the fact that there are in effect two different degrees (the two-year bachelor's followed by a two-year masters) and two different sets of institutions: the normal degree colleges, which award bachelor's degree and elite colleges and universities, which give master's degrees. A practical program would **recognize that while eventually the two-year bachelor's degree might well disappear, it can and should serve a useful function in the meantime.** A country that faced a similar situation and tried to find a workable solution is Singapore. In the Singapore model, the first two years in a four-year degree program (the BA/BSc level) are now allocated to general education, while the final two years are increasingly specialized.
- 3) Initially, selected two-year bachelor's degree programs would be converted to a liberal arts curriculum. These institutions would then recruit students only to four-year programs, of which the first two would be in liberal arts, and the final two in a specialized field. In practice, this would mean that **the two-year bachelor's degree would become a kind of half-way degree** (such as that awarded to PhD candidates *en passant* when they complete the examination requirements for the PhD). The regional colleges, at least initially would become the equivalent of community colleges. They will continue to offer only two-year bachelor's degrees. However, graduates of these colleges who wished to undertake further education could do so—presumably after taking some remedial courses.

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- 4) If this practical solution were adopted, its **financial costs would not be overwhelming**, since most of the selected institutions already offer a complete range of subjects in four-year programs. The costs to be incurred would consist of the following:
- The initiation of the first two-years of the four-year degree program at universities.
 - The provision of remedial liberal arts education to the graduates of two-year degree programs.
 - Higher enrolment in the masters programs because of the lowering of the dropout rates after the completion of the first two years of the four-year program.
 - Introduction of subjects not currently taught at the bachelors level. These may include for example, writing, computer science, philosophy, South Asian studies, and religion.
 - The need to produce textbooks in the relevant core areas. Here, the private sector should be encouraged to produce and market the requisite textbooks.
- 5) The **practical steps** in moving in this direction are the following:
- First, a decision is made in principle to switch to general education.
 - Second, an implementation committee is constituted, consisting of college and university faculties and administrations, as well as academic experts, government officials, publishing houses, industry representatives, and students.
 - Third, the committee sets up subcommittees on the core curriculum, and those that examine the implications of the shift on financial, testing/ examinations system, recruitment, and institutional dimensions.
 - Finally, the committee provides recommendations on the core curriculum, financial allocations, fundraising mechanisms, student selection, faculty recruitment, revamping of the examination system, and institutional cooperation and sharing.

A significant component of this exercise would be to **ensure that the core curriculum is “rooted” culturally, politically, and economically**. This means not only that it emphasizes humanities and cultural studies, but also that in this regard it incorporates the literature and writings from Islamic and Indian sources, Second, that it is cognizant of the political movements in the regions and around the globe, and that it prepares its students for active participation in the political life of the country. Finally, that it is mindful of the economic opportunities that await its graduates, and that the students as well as potential employers (government, business, media, NGOs, and political groups) find the resultant skills to be useful. To that effect, all students educated in this general curriculum will have necessary exposure, knowledge and experience of more scientific and analytical subjects, such as Mathematics, Physical Sciences and Computer Sciences. At this point, however, all that can be proposed is that a decision is taken in principle to introduce this system over a period of, say, three years, and the Commission on Higher Education be asked to initiate the process of finalizing it.

As mentioned, an important argument in favor of the system of general education is that it could provide greater flexibility in introducing new subjects into the curriculum. To this end, the committee may also **examine the question of the diversity of course offerings**. These could range from the rigidly prescribed ones (i.e. the core curriculum, those that require departmental scrutiny and are therefore prescribed within limits), and genuinely optional courses that faculty members may wish to teach. The number of flexible courses may vary from place to place, depending on the teaching loads. However, a permanent committee may have to be established to look at the questions of emerging knowledges. The committee may assign the responsibility of introducing such areas initially as optional courses. This will allow gradual decision-making, whereby a testing of the market for such courses is done before a decision to commit institution-wide resources to it.

This system will not be able to function without adequate **review and reflection**. This means that research funds need to be put in place to examine textbooks, core curriculums, quality of education in various institutions and related matters. These funds need to be allocated in a transparent and equitable fashion.

Faculty development is key to the success of higher education reform. A critical mass of highly professional, committed, and motivated faculty with requisite knowledge base and pedagogic skills can implement the proposed general education program effectively. The current traditional curriculum does not empower students to set goals for their own learning. Students are mostly expected to memorize facts given in textbooks and reproduce them on the tests. The aim of the proposed reform is to introduce a curriculum that fosters a deep understanding of the subject knowledge and develops critical, analytical, and creative thinking in students. The faculty development program should focus on exposing teachers to learner-centered approaches to instruction and ongoing performance-based assessment strategies. It would include professional interaction with faculty from abroad (including faculty and researchers from the South Asian region), faculty exchange programs, professional development seminars, research conferences, refresher courses, and masters and Ph.D. programs in Pakistan as well as abroad. This requires financial and administrative support to the faculty on the part of the institution. The faculty members should be encouraged to seek outside sources of funding as well. These professional development opportunities would provide the faculty an opportunity to learn about innovative programs in other parts of the world. It would enable them to develop, adapt, and implement new courses and programs of instruction in their own context. In addition, extensive training in research methodology would help the faculty conduct ongoing studies to gauge the effectiveness of the new instructional programs, and develop new pedagogic and assessment tools to constantly improve the processes of learning and teaching. The regional colleges affiliated with the universities engaged in the reform should also be included in this effort by involving the faculty in these professional development opportunities. This would help improve the quality of education in the regional colleges and enable the faculty to introduce optional courses within the existing programs along the lines of the general education model.

4.2.3 Scientific Education

With the exception of some recently established institutions in the private/ non-profit sector (GIK Institute and NUST), there is very little in the form of good scientific education. Furthermore, this education continues to be highly fragmented and irresponsive to societal needs. For example, notwithstanding the massive investments made in agricultural and engineering education, the country has virtually no experts who understand both agronomy and irrigation. Similarly, environmental concerns have found it difficult to get into curriculums as well as policies because they cut across traditional disciplinary boundaries—boundaries, it may be added, that are more rigidly drawn and protected in developing countries. The TFHE recommends attention to five areas pertinent for developing countries:

- 1) **Physical and technical resources:** Both are essential for good quality scientific education and are generally extremely expensive. Pakistan already has very low tariffs on such equipment, but the issue could be examined again. More interesting is the recommendation to use second-hand (but essentially state of the art) equipment. While the TFHE recommendation to establish clearing houses of such equipment is an innovative one, a start could be made on a bilateral basis. Some nonprofit groups in the US have successfully transferred second-hand computers to institutions in developing countries. However, the potential is much larger. A second issue is that of textbooks and, more importantly, professional journals. The pooling of demand by different

institutions (which could extend to all of South Asia) could well lower the cost of textbooks. Also, there is a need to encourage the local publishing houses, which are also cheaper. Oxford University Press, which has offices in all South Asian countries, could well take the lead in establishing such a system. Finally, Pakistani institutions exploit the research capacity of the Internet very minimally. The most productive infrastructure investment in these institutions would be to connect them to the Internet. The government of Pakistan already has a program of an educational network. This could be speeded up. Donors could well support the provision of online journals (such as through Science Direct) to educational institutions.

- 2) **Human resources:** The lack of trained scientists to teach at universities and colleges is a persistent problem in developing countries. In the case of Pakistan, the problem is mainly that of the brain drain rather than the non-existence of qualified Pakistanis. In the long run, establishing a decent educational system will itself help to reverse the brain drain (by enabling people to acquire the requisite education in the home country). In the short run, however, there is a need to attract talented individuals back to the country. Other chapters in this report highlight some means of doing so. External groups can play an important role in organizing conferences, creating an information exchange system, and facilitating exchange programs.
- 3) **Local, regional and international cooperation:** The classic example of international cooperation is the Consultative Group on Irrigated Agricultural Research (CGIAR) system, which notwithstanding its weaknesses has managed to support an enormous range of agricultural research in education institutions worldwide. The strength of the agriculture research establishment in Pakistan, in comparison, say with the Pakistan Council for Scientific and Industrial Research (PCSIR) system is partial testimony to the benefits of participation in a functioning global network. There may be a need to establish such networks in other critical areas, including for example, the environment, information technology, and biotechnology. As in the case of the CGIAR system, the initiative needs to come from civil society organizations. The other classic example is that of the India IIT system, in which the five institutions were linked to technical cooperation and donor support with five different countries, thus creating a healthy competition between them. A third dimension, which has already been mentioned obliquely, is cooperation within the region, at least in non-strategic areas. The most productive approach would be to support the establishment of one or more global networks of expatriate Pakistani scientists.
- 4) **Strategies for scientific development:** The previous paragraph leads directly to the strategy that the country needs to adopt with regard to scientific development. The current system is based on the twin pillars of the PARC and PCSIR systems (with the PMRC playing a distinct subordinate role). However, while the former is reasonably well funded (even though it has deteriorated over time), the latter two are widely viewed as dead institutions. A process is in place for reviving at least the PCSIR system through privatization, but it has not met with great success. As in the case of agriculture, explicit linkages need to be introduced amongst institutions of research and education, and between these and industry. It may be useful to explore the contributions that APPNA and APSENA could make in this regard. The universities in particular need to establish funds to assist faculty members to attend conferences or other professional events.
- 5) **University–Industry cooperation:** At present, industry is only marginally involved in the research program, and not at all in educational institutions. Formal systems, such as those described in other chapters, that invite and structure such cooperation need to be established.

5. Fiscal Reform

This chapter seeks to highlight critical issues rather than be exhaustive on concerns related to fiscal reform. It focuses principally, on issues related to financial viability of higher education institutions in Pakistan. These comments focus mainly on public sector universities. Moreover, a number of issues raised here relate directly to, and should be read in conjunction with, issues raised elsewhere in this report (for example in the previous section). By highlighting key challenges and interventions, this chapter identifies the direction in which change is needed. However, it realizes that the specific details of any policy intervention can only be devised by particular institutions in the context of their particular circumstances, resources, and constraints.

5.1 Problem Statement

While it is difficult to get detailed data on the fiscal health of higher education in Pakistan, even a visit to the public sector universities in Pakistan and discussions with the faculty and students can provide a compelling insight into the state of distress. The numbers that are available are illustrative of the milieu of problems faced by higher education institutions in Pakistan.

The total public sector expenditure on education (all sectors) has risen over the last three decades moving from 1.7 per cent of GNP (constituting 4.2 per cent of government spending) in 1970 to 2.8 per cent of GNP (7.1 per cent of government spending) by 1995.¹² However, this is not only well behind world averages (3.4 per cent of GNP and 13 per cent of government spending, in 1995) but also significantly behind the regional average for South Asia (5.0 per cent of GNP and 11.4 per cent of government spending, in 1995). Moreover, the 90s have in fact shown a decline in such spending.

More importantly, the share of expenditure devoted to higher education has been falling, even as the total expenditure on education (as a whole) has marginally increased. In 1985 Pakistan spent an estimated 18.2 per cent of its educational expenditure on higher education; by 1995 this was down to only 13.2 per cent of the total public expenditure on education. Interestingly, by 1995 the Pakistan average expenditure on higher education (in proportion to total educational expenditure) was not very different from the South Asian average (which was at 13.1 per cent). However, the report of the 2000 World Bank Task Force on Higher Education estimated that the cost of higher education in Pakistan (as a proportion of the GNP per capita) was far higher than comparable countries. In 1980 the expenditure per student on tertiary education in Pakistan was 236 per cent of GNP per capita. By comparison, the world and South Asian averages were 163 per cent and 143 per cent, respectively. The World Education Report cites more recent numbers, where the situation is less stark. In 1990 Pakistan's expenditure per student on tertiary education was 123 per cent of its GNP per capita and by 1996 this was at 94 percent. This was still below Southern Asia averages, which stood at 91.4 percent and 72.8 percent, for 1990 and 1996 respectively.

¹² All statistics in this chapter are from the report of the World Bank's Task Force on Higher Education, "Higher Education and Developing Countries: Peril and Promise" (Washington DC: World Bank, 2000).

The available statistics on the number of students receiving tertiary education are no more flattering. In 1980, only 182 out of 100,000 (one lakh) inhabitants received tertiary education. A decade later this number had risen to 266 per 100,000 inhabitants. By comparison, the world average was 1,021 and 1,318 per 100,000 people for 1980 and 1990, respectively; and the South Asian average was 445 and 338 per 100,000 people for 1980 and 1990, respectively.

Scattered as these numbers are, the broad conclusion they point towards is that not only is Pakistan's higher education sector strapped for cash, but that what is being derived from this expenditure is less than what might be desired or expected given the experience of similar countries. A cursory review of the South Asian numbers suggest that in terms of GNP-based comparisons, Pakistan seems to be spending proportionally less on higher education, while each tertiary student costs more, and the higher education system seems to be less productive.

Based on this, but even more on personal discussions with faculty and students at various public sector universities in Pakistan, one is tempted to propose that the current crisis of fiscal solvency within Pakistan's higher education sector is what might be called a 'triple whammy' – it is not only that Universities (particularly in the public sector) are severely strapped for cash, but also that whatever little resources they have at their command are both mismanaged and misused. Although we will deal with these three issues separately here, it should be noted that they need to be addressed together and in conjunction with a host of other related issues.

5.2 Options and Possible Solutions

This section will discuss the challenges of fiscal solvency faced in three interrelated areas: a) generating resources, b) managing resources, and c) investing resources. Each section seeks to highlight key challenges and possible solutions. There is no attempt made to prescribe particular boilerplate solutions; these will be specific to particular institutions.

5.2.1 The Challenges of Generating Resources

Although by no means 'easy', increasing the amount of money being generated for and by Pakistan's higher education sector is possibly the easiest of the three major challenges being discussed here. In large measure this is a factor of the pitifully small amount that is currently being generated for and by the higher education sector in Pakistan. Moreover, the possible avenues for expanding the resource base are generally well-identified and based on the experience within and outside Pakistan. One can express some confidence in the relative potential for additional resource generation.

In broad terms, there are three main sources of resource generation: grants and contributions from the government, utilization of resources within the University, and from (non-governmental) sources outside of the University. (As a goal for 2020, one would hope that all public sector universities strive for around a third of their costs being covered from each of these sources, respectively). Let us review each of these.

Government Resources

Currently the vast bulk of the financing for public sector universities comes directly from government sources in the form of grants. It is quite clear that the amounts that the government is currently investing into higher education are pitifully low. However, in

addition to the amount of governmental support, the manner in which the grants are administered is also of importance. Currently the grants are largely untied to performance. This situation is characterized by a lack of incentive at the level of the universities and creates pathologies of unaccountability at the level of the University Grants Commission (UGC), which is the grant-making body. A number of steps could be envisaged to streamline this process and make it incentive-based. At the level of the University Grants Commission, the following actions could be taken regarding the disbursement of funds to Universities:

- 1) A transparent and predictable formula according to which program funds are disbursed to public sector universities, should be defined and publicized. Such grants should not be subject to negotiation or variation; should be the same for all public sector universities; and should be based on unambiguous measures tied to performance and need. It is likely that enrollment would play a major role in this segment of government allocation.
- 2) Discretionary funds for special projects may be available, and dispersed on the basis of perceived need. However, the procedure by which such decisions are made should also be transparent and predictable.
- 3) A set of performance-based funds based on transparent and predictable procedures should be available to UGC for use, as an incentive for achievement. For example, up to a certain limit a university might be able to receive additional grants to match the money that the university raises itself from other outside sources.
- 4) Partly as a means to operationalize the first objective above, the UGC may develop internally or encourage some national newspaper or magazine to develop a transparent and regular system of ranking institutions of higher education. Such a ranking system can be based on rankings available in many countries (including USA) and may even be combined with a periodic independent review system for all universities. This would not only assist the UGC in streamlining its systems of provision of resources but will also give the universities and public an independent measure of performance and cultivate a culture of healthy competition between different universities.
- 5) Important steps also need to be taken at the level of local and provincial authorities. Local government and utilities should be encouraged to provide support to universities operating in their jurisdiction. These could come in the shape of local tax incentives, cost-sharing on utilities, grants for student support, or support in infrastructure development, etc.

University Resources

A much wider range of finance-raising activities are available that make use of the resources within the university. These are currently being grossly underutilized. Proposed initiatives include three critical areas of resource generation: a) tuition and fees, b) resource generation from professional education, and c) property resources.

- a) A process of rationalizing the structure of tuition and fees will be proposed later in this chapter. Despite most students getting some form of financial support, a significant fraction will be able to afford and pay more, enhancing the resource base of the universities. Non-resident (e.g, out of Province) students could also be charged higher rates of tuition.
- b) Universities should be encouraged to initiate programs of professional education as a revenue generating strategy. This would include short courses and training sessions held for companies or working professionals who wish to upgrade their skills and are willing and able to pay higher costs than full-time students. A number of private universities in Pakistan have already demonstrated the viability of this model in Pakistan and the mushrooming of private training centers for skills such as computer

programming suggests that there still exists sizeable untapped potential for such activities. Sharing the rewards of such activities with the faculty would provide an added incentive to the faculty members for improved performance.

- c) University property resources should be treated as assets and universities should be allowed and encouraged to manage these assets as finance-generating devices. Such assets include real estate, commercial property, rest houses, and laboratory resources.

External Resources

The third source of financing for universities is from resources outside the university. Potential sources of generating such funds include:

- a) Faculty research and consulting: Currently there is little incentive for faculty members to do research, and whatever consulting is done is usually done in a personal capacity. Tapping this resource will require creating incentives for faculty to not only do more research but to channeled their research grants and consulting earnings through the university system (in which case the University will keep a standard percentage of the research grant as overhead). There should be clear rules and procedures about the use of university based facilities, the university name, and student research assistants when research grants are channels through the university. Most importantly however, the university (possibly in collaboration with the UGC) would need to invest in creating strong 'sponsored research programs' where full-time university staff assists faculty members in attracting research grants and encouraging potential sponsors to use the university's faculty for sponsored research.
- b) International donor agencies and public philanthropy: While international donors may have an interest in investing in public sector higher education in the immediate future, public philanthropy may be unavailable in the short-term but is worth cultivating. While the tradition of public philanthropy for higher education has nearly died down in Pakistan largely due to the lack of trust in these institutions, such a tradition was alive until fairly recently. Indeed, there are signs that it can be revived (for example, recent initiatives at the University of Karachi). Such sources tend to be particularly useful in terms of raising endowments, expanding on physical infrastructure, and creating scholarships.
- c) Alumni: Tapping in to this source will require the demonstration of a permanent interest in the prospects of graduates, maintaining regular contact with them, involving them in the institutions' evolution, etc. This requires the services of a permanent professional staff. Indeed, an Office of Alumni Relations (with added responsibility for philanthropic fund generation) would be an investment well worth making.

5.2.2 The Challenges of Managing Resources

Public trust in the fiscal management of public sector universities is almost certainly as low as public respect for the education they impart. The problems are compounded not only by the acute dependence between the UGC and the Universities but also because of the archaic and secretive systems of fiscal management that thrive at most public sector universities in Pakistan. Any meaningful reform process will have to embrace changes in three areas which are discussed below. Beyond the centrality of these three, certain basic principles can be defined for how universities manage and account for their spending. Box 5.1 outlines such a set of principles and details how they could be operationalized.

Transparency and disclosure:

The first area for reform in fiscal management relates to transparency and disclosure. It is necessary that all universities disclose in transparent and accessible formats exactly how much of the public's resources they are consuming, and in what manner. Unfortunately, there is no such process currently in place. As an immediate step, a standard format for

university annual reports (covering fiscal as well as performance measures) should be devised (possibly by UGC in consultation with various universities). Each institution should be required to make its annual reports and financial procedures publicly available.¹³ Each report should also include a certified audit of finances. The purpose of such initiatives is not simply to streamline fiscal processes and avoid corruption and mismanagement but also to inculcate trust and nurture the institutional legitimacy of our universities both for potential donors and alumni.

Box 5.1: Fiscal Management—Key Principles

Three key principles should guide a university's management of its financial resources. First, recurrent revenues must cover recurrent costs; second, that this must be true for all comprising units of the institution (e.g. departments, libraries, examinations, commercial activities); and third, that information about revenues and expenditures are public property and should be placed in the public domain. These may appear to be simple (even simplistic) and fairly uncontroversial propositions, but their implications are far from simple.

For purposes of this discussion, costs as well as revenues can be divided into two categories: core and ancillary. The purpose of this distinction is to separate essential activities from auxiliary ones, permanent activities from those that might take place occasionally, and predictable activities from exigencies. Given this, the fundamental principle of financial discipline should be the same as in most nonprofit organizations, namely that core costs should be funded exclusively from (predictable) recurrent revenues. Recurrent expenditures are the direct and indirect costs associated with normal teaching functions of a university. The costs associated with the normal teaching functions include faculty salaries and benefits, salaries and benefits of non-teaching staff (administration, library, security, lab technicians, buildings and grounds maintenance, student counseling, teacher training, alumni and donor relations, and the like), maintenance and operation of infrastructure (rent, utilities, repair, replacement of classrooms, offices, dorms, sports facilities), communications equipment and recurrent costs, library equipment and publications, teaching materials, and laboratory materials. These should be distinguished from developmental or ancillary activities, which may cover short term or ad hoc initiatives as well as expansion or revamping of the structure, funds for new buildings, new programs, new commercial ventures, and new equipment.

Recurrent revenue sources are mainly tuition, earnings from endowments, and predictable government grants. Other sources, including alumni contributions, funding by philanthropic foundations or technical assistance sources, ad hoc government grants, and surpluses and overheads from commercial activities (including consultancies by faculty members, rental of real estate, summer programs, rental of equipment or conference facilities, and others), should be characterized as non-recurrent in nature, and therefore as developmental or ad hoc revenues. Further details on each of these items are provided below. In the ideal case, these additional sources of revenue, which are unpredictable and ad hoc in nature, should not be used to fund recurring activities. Of course, it is possible that some of these might generate predictable incomes. Still, the principle ought to be that the surpluses, if any should be ploughed into an endowment fund, and thus the inherently unpredictable form of revenues be converted explicitly into a predictable form.

If this principle is followed, it has implications for a number of related issues. First, it implies a more stringent and transparent financial management. Ideally, all the revenues and expenditures of the university should be placed on the web in order that the exercise will be useful in other ways as well. It will help the university communicate to its students the true costs of a university education, provided it forms the basis of the (nominal) tuition fees to be charged to them. It will also provide the basis of information to the government and other donors in order to generate predictable revenue streams. Finally, it will permit the comparison of different universities and colleges by estimating their unit operating costs, thus indirectly placing them in a financial discipline grid. The second point in the imposition of financial discipline is to ensure that not only the entire university, but also each and every cost center is financially solvent. This means that the aggregate budget needs to be allocated to every cost center and fiscal discipline introduced at that level.

Accounting:

A second equally important issue, relates to accounting rather than accountability. How universities account for their costs and budgets has a direct bearing not only on the fiscal solvency of the institution but also on its substantive performance as an institution of higher learning. An immediate step in this regard is the rationalization of the tuition. Whether

¹³ Documents should in general be put on the World Wide Web and be easily available in hardcopies at other places accessible to the public.

students are actually charged the full amount or not, all students should be clearly 'billed' for the full amount spent on them. If students are billed for merely a few hundred rupees for a year's worth of university education, that is likely to be the value they place on it. At the very least, disclosing the true cost of the education to the students would make them respect that education more. At best, it will spur them to demand better quality from the university itself. This does not mean that all students have to pay the full cost. The same subsidies that are awarded today can be relabeled as scholarships. The principle of cost rationalization should be applied to all aspects of accounting. Each element within the university structure should operate as a separate cost unit, with clearly defined budgets and reliably reported activities. Such rationalization and accounting is necessary for producing the annual report discussed above and allowing institutional leadership as well as the public to have a clear idea of the costs of each element.

Fiscal management:

The third element of this challenge relates to the actual levers of fiscal management within the university. Given the thrust of the two issues raised above in this section, the burden of fiscal management within the university will be greatly increased. There is a need therefore for a professional position of VP of Finance and Administration as discussed in the previous chapter. Apart from being entrusted with managing the process outlined earlier and overseeing the various reporting requirements, this office would also be responsible for managing the property resources of the university and any investments and endowments that the university might have.

5.2.3 The Challenges of Investing Resources

In some ways the title of this section is misstated. Our concern here is not financial investment, but the investment of financial resources in the higher educational process. Neither generating resources nor managing them with transparency is the real goal of higher education. The fundamental goal is to invest resources in the educational enterprise and reap the profits of learning and knowledge. The financial health of a university must, therefore, be intrinsically tied not only to resources raised and managed, but also to what educational benefits are derived from their usage.

We can think of three key areas in which a university's financial resources are invested: students, faculty, and institutional development. Significant new and additional investments are needed in each of the three areas.

Students:

Students lie at the heart of the educational enterprise. All investments of a university – be it teaching, research or building programs – are ultimately investments in the students. To facilitate provision of quality education to any deserving student, a comprehensive financial support program must be available at all universities. In the case of Pakistan, such a program would initially have to encompass the vast majority of all students enrolled at public universities. Universities in Pakistan must therefore be geared to provide financial support to a far greater proportion of their students than, for example, universities in USA. On the one hand, the existing subsidies in public sector universities are substantial and under the proposal above they will be re-accounted for as scholarships. However, this will not be enough and additional resources would need to be generated for more financial aid. Unfortunately, previous attempts at government loans for university students have been unmitigated disasters, while loan programs in private institutions seem to have worked better. Another option that needs to be tried out at a larger scale, which will also have significant educational benefits, are on-campus work programs such as student research

programs in the US. This will need to be tailored to the realities of Pakistan and integrated in conjunction with a research incentive program for faculty.

Faculty:

Part of the investment that needs to be made in faculty has already been discussed above in relation to the need to encourage research and consulting activities. In addition to that, the pay scale of university faculty must be drastically improved. Currently, there is little incentive for the best talent to teach at public universities, even where there is a willingness to do so. It is unrealistic to seek or hope for a large-scale return of Pakistani academics abroad to teach in Pakistani universities. Those who are honest in their desire to return will return if pay scales are rationalized to 'Pakistani standards'. University resources are therefore better targeted to attracting the best people from within Pakistan. The target should be those who would make good faculty members but are attracted to the private sector, because of better pay, or the government sector, because of the greater influence. However, even attracting them implies a 4 to 5 times jump in the remuneration scales.¹⁴ This would be a very small investment in comparison to the benefits it will give. Without such an investment a reform program has little chance of success.

Institutional development:

The final category of investment is in institutional development. This includes investments in buildings, laboratories and other facilities and investments in non-faculty staff (including the new offices suggested earlier). These would be substantial investments, because the concomitant raise in pay scales of university staff is of significance. Investments in institutional development should be in keeping with the expressed principle of focusing on core elements of a sound education rather than on 'flavors of the month'. The state of facilities and laboratories in almost all universities in Pakistan is dismal and in need of sizeable investments. Resources generated from research projects and philanthropic gifts should be especially allocated for such purpose and targeted programs for raising funds for specific projects should be initiated and staffed by competent professionals.

¹⁴ Assuming a current starting salary of Rs. 12,000-15,000 and private sector salary of Rs. 40,000-60,000 per month.

6. Implementation Challenges

This chapter argues that the socio-political aspect of the higher education reform process should be explicitly managed, similar to its technical aspect. This requires creating a specific organizational element with its own budget and human resources, whose primary responsibility is to manage this aspect. It also suggests an organizational element, its goals and the processes it should nurture to mobilize the stakeholders, obtain their buy-in for the reform process, and to empower the reformers to deal with the negative impact of vested interests. The lens here is that of a single university where a reform process is being implemented, rather than the entire educational system. All recommendations should therefore be considered within this context.

The chief goals in allocating resources and creating processes to manage the socio-political side of higher education reform are to:

1. Mobilize the opinions and involvement of the stakeholders.
2. Reduce resistance to change and skepticism in the elements within the universities.
3. Organize and empower the reform-minded community within and outside of the universities so the resulting reform is sustainable.
4. Provide visibility into the progress of the reform process, with the belief that such visibility will:
 - a. Increase the momentum of reform throughout the educational system and increase credibility of our institutions.
 - b. Provide an added mechanism of accountability of the process, through public disclosures of its progress.
 - c. Reduce the powers of the vested interests in hijacking the process, counting on the power of public and political opinion.

While one possibility is to simply treat the above as ad-hoc problems and leave their management to the will and tact of the reformers, another is to explicitly allocate resources - manpower and budget, to address these problems in a central way, within each university. This is what we propose. We strongly recommend that the socio-political aspect of the reform process not be immediately dismissed without adequate reflection, under the mistaken assumption that this is not a first-order problem.

6.1 Problem Statement

The interim report of the PTF includes a brief commentary on most of the significant educational policies and initiatives in Pakistan's history. Some of the major non-technical factors contributing to the lack of success of these policies are immediate from even a cursory glance:

1. **Lack of vision as well as focus**, with most educational policies considering the entire system of education instead of, for instance, sub-policies focusing on higher education. We believe it is the mandate of the task force to provide leadership and vision, and perhaps most importantly focus energies on higher education.
2. **Lack of political will at the highest leadership levels to implement reform.** This issue is troublesome and there is often little that can be done to mobilize political will at the highest echelons. The first part of getting the policy –makers to

commit to the reform process is often beyond the means of well-intentioned reformers. However, once an initial commitment to reform has been made from the highest echelons and the reform process started, we believe the academic community and the reformers should shoulder the responsibility of maintaining the support. The reform process should explicitly allocate resources to maintain interest of the political leadership and lobby for positive changes, to keep the momentum alive, for the political leadership to be adequately apprised of the progress and to provide public visibility into the process.

3. **Lack of political will and resistance to change by both faculty and administration within universities.** This is where a reform process can have much impact. Not only must reformers explicitly engage the constituents within an academic institution, they must also actively disseminate information about its progress and the major obstacles it faces. Anecdotal evidence is rife with examples of groups stalling the reform efforts of a well-intentioned VC or university administration. Many times, this can be avoided by adequately engaging the constituents and the existing bodies such as faculty and administration representative groups. While we cannot, sitting outside, reasonably advise on the methods one can use, we can suggest the possible outcomes one should aim for, and the mechanisms that might be employed.
4. **The existence of vested interests in both within the universities and outside** (the UGC, for example, in its reaction to the 1990 World Bank sponsored study). The presence of vested interests is an indisputable fact. There is little that can be recommended by a report, since this is a reality that can only be tackled by people on the ground. It makes sense, however, for the reformer to dwell on the model of a particular institution, identify the key players and their strengths and weaknesses in advance. In particular, possibilities should be sought for gaining their adherence and making the reform process appear less threatening to their interests.

It is obvious that reform implementation cannot succeed without considering the reaction and participation of the stakeholders, and explicitly considering the negative reactions of the vested interests. It is clear that the reactions of different stakeholders is likely to range from apathy, from the majority of its constituents, to deep skepticism and possibly active negativity or hostility. The apathy and skepticism can be overcome significantly by our proposals, but the outright hostility can only perhaps be mitigated, by sufficiently empowering the majority of the stakeholders, thereby reducing the power of the negative interests. Recent drives in university reform in countries like the US have aimed at being inclusive, seeking active community and stakeholder participation. These are, of course, signs of a mature system, but some lessons can perhaps be learned for Pakistan.

In particular, proponents of higher education in the US have realized that they can no longer outright assume the same level of public or policy-makers' support as they once could. In Pakistan, public or policy-makers support has never existed, so it cannot be assumed. However, the academic community can decide to take upon themselves the challenge of actively lobbying for this support. The presidents of universities such as MIT and Cornell now actively engage in ambassadorship roles to keep the political leadership actively interested in the performance and benefits of the higher education system. Within universities, any major change or debate involves significant public participation and visibility. Examples abound, such as Harvard's re-examination of its curriculum and MIT's lifelong learning program debate.

6.2 Options and Possible Solutions

This section proposes an organizational element for managing the socio-political side of the reform process. We outline the main activities of the element, and address some necessary conditions without which the proposal is unlikely to work.

6.2.1 A “Reform Information” Office

Our main recommendation is to create an office of “Reform Information”, with its own budget and terms of reference, organized into the following cells:

1. A **“public-relations/media cell”** whose goal is the mobilization and awareness of the community and public at large. The mechanisms to be used can be newspaper articles, press releases, TV interviews, websites and other information dissemination, such as through relationships with international magazines and researchers, with the goal of interesting them in the coverage of the reform process.
2. A **“community involvement cell”**, with the main purpose of mobilizing the community within universities, and perhaps outside, through a series of consultative seminars, talks, community gatherings, and update sessions on the progress of the reform.
3. A **“liaison cell”** to act as a link between the Vice-Chancellor’s office and the political leadership outside the university -- lobbying for changes, providing them regular updates on the progress of the reform process, the next sets of goals, hurdles, and in general continually keeping the leadership engaged.
4. A **“research and development cell”** to collect data and document the progress of the reform process as it evolves, and to summarize the information for public, policy-makers and donors’ use. This cell will also provide input to the other cells, and documentation of successes and failures will lead to an increased credibility with donor agencies. This cell can utilize the services of several expatriate Pakistanis and NGOs interested in the research and documentation of reform processes. In order to track the progress of the reform process, it is extremely important for this cell to specify metrics for evaluation a priori and disseminate them widely among the actors, to help the efforts remain focused.

A possible organization of the “Reform Information” office could be as follows.

1. This office should be directed by a committee of *at least* four senior faculty and administrative staff (possibly Pro-VC and a number of Deans, and the Registrar and Comptroller), whose primary responsibility is to set the strategic direction of the communication strategy every six-eight weeks. The committee reports to the VC and bears the primary responsibility for the progress of the “Reform Information” office. It has complete charge of the budget for the office.
2. Directors for each cell and their support staff – possibly two people for each cell. The goal here is to have an organized group of people whose *primary responsibility* is external communication. Often, this cannot be done part-time, requiring some form of compensation for their full-time or part-time efforts.

6.2.2 Activities of the Office

The activities of such an office and its cells would include:

1. The **“media cell”** should be charged with creating a positive image around the reform process in the minds of the public, donors and alumni using print, digital and electronic media. In this sense, the media cell is like the marketing department of a corporation.

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2. The **“community involvement cell”** should target the community within and outside the university on a more direct level. Its goals should be to, a) nurture a bottom-up process of change to accompany the top-down implementation of policies, and b) find methods to make the process less threatening to the negative interests entrenched in the system, by engaging them, to whatever extent possible. A mechanism could be a series of talks, consultative seminars and progress updates on the reforms process. The effectiveness of these seminars is again directly dependent on the creativity and competence of the people involved in this cell.
 3. The **“liaison cell”** should ensure that the reform process and its progress remain at the fore of the national policy makers’ consciousness. It is abundantly clear that academics should now explicitly assume the responsibility of active lobbying for education reform. The charter of the liaison cell could be to arrange visits to the university (perhaps as arranged talks) by political leadership, present reports and presentations to them at a time-scale more frequent than the annual or six-monthly reports to them, and to lobby for funds and counter any negative propaganda.
 4. The **“research and development cell”** should engage in the collection and summarization of data about the reform process, including the production of reports. It should attempt to engage Pakistani researchers and academics interested in development research for its efforts. They should actively collaborate with the “media cell” to get these reports published and widely disseminated. This will have multiple and strong positive effects, including building credibility in the national and international community for the progress of reform, and providing an additional mechanism of accountability for the process.

6.2.3 Assumptions and Pre-Conditions

The preconditions needed for our proposals to work must be recognized at the outset. We comment on these and some pitfalls below. The proposals are predicated on:

1. The existence of individuals, perhaps 5-10 in each university who are committed to these tasks and believe in their utility. Sometimes, this may require hiring people outside of the academia who have expertise in mobilizing political or public opinion, such as graduates or professionals from universities, such as institutes of public opinion, or experts in mass communication or journalism. This is an extremely important point and needs to be emphasized again. Creation of the structures proposed here makes no sense simply as a policy and will only add to the bureaucracy of the process unless one can find or hire individuals to implement these recommendations effectively. As such, it requires a group of people whose *primary task* is to produce this mobilization. Often, the time and energy constraints of the faculty, and the fact that this is not their primary expertise, renders the process ad-hoc and ineffective, leaving the constituents with an opaque reform process and a sense of lack of structure and thinking behind it.
2. To ensure that the cells succeed in their support role, it is essential to grant them full access to all major actors and all documentation and data related to reform. The reason for re-emphasizing this is to guard against the normal tendency to relegate these functions to secondary roles and consider them less important.
3. Similarly, reliability of these cells is extremely important, since programs created to provide visibility into a process often enervate and are set aside because of other pressing concerns on the participants’ time. Classic examples are websites of educational institutions in Pakistan, which are seldom updated. In order to ensure that this does not happen, someone must have primary responsibility for producing and maintaining this information, and they must be paid for it, so that it is part of their primary job. The sense of quality is also a desirable feature. Often, one finds a

significant lack of quality and thought in reading through documents exposed to the public. We do not dwell too much on this matter but it is a very pertinent point.

It is clearly very difficult to judge the effectiveness of the mechanisms proposed here. Metrics are difficult to specify in the abstract. We recommend that the committee, however, specify a priori expectations from each of the cells at periodic reviews. These could take the form of the number and quality of press releases, interviews, citations, seminars and their responses, reports presented to the political leadership, and others. This is another area where expertise of communication majors and graduates, say, from institutes of public opinion will be invaluable, since metrics for such strategies must clearly be available.