# Report of the Taskforce On Higher Education 

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& \text { Government of Karnataka } \\
& \text { Bangalore } \\
& \text { September } 2004
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## Acknowledgements

This report is the outcome of collective thinking and contributions of a number of people. The report synthesizes the observations emerging from various studies and from number of interactions with different stakeholders in higher education carried out over a period of nearly two years. The decision of the Government of Karnataka to set up a Task Force on Higher Education is unique, showing the eagerness of the Government to shape higher education by consolidating gains made in the past and addressing challenges of the future. The Task Force invited Vice-Chancellors, Principals, Deans, Registrars and Finance Officers, Representatives of Managements of Private Aided and Un-aided colleges and Representatives of the teaching and nonteaching associations to place their views on various terms of reference before it. The Task Force wishes to place on record its appreciation of the many useful suggestions these persons have made.

On behalf of the Task Force and on my own behalf I would like to thank the Chief Minister and Minister of Higher Education, Karnataka for requesting us to serve on the Task Force. It is our firm hope and belief that the Government of Karnataka will consider the report and its recommendations and implement them in the largest measure possible.

The Task Force had three persons as Member Secretary, Shri. Vijayabhaskar IAS, Shri. K.P. Pandey IAS and Ms. Sobha Nambisan IAS. The Commissioners of Higher Education namely Shri. Lukose Vallathrai IAS, Shri. V.R.Patel IAS and Smt. Ranjani Srikumar IAS facilitated the work of the Task Force. The Task Force would like to place on record its appreciation of the time and attention given by these officers of the Karnataka Government to the work of the Task Force. The Task Force also thanks Dr.M.D.Muthamma former Director,Collegiate Education and K.V.

Kodandaramaiah Addl.director, Collegiate education for having participated in some of the meetings.

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Most of the meetings of the Task Force were held at the Syndicate Hall of the Bangalore University. The Task Force would like to thank Prof. M.S. Thimmappa, Vice-Chancellor, Bangalore University, Member of the Task Force and his colleagues for arrangements for the meetings and hospitality. On a couple of occasions, the Task Force met at the premise of Infosys, Electronics City at the invitation of Shri. Dinesh, Director,Infosys and Member of Task Force. The Task Force would like to thank Shri. Dinesh and Infosys for their hospitality and Shri. Sanjaya Purohit of Infosys for some of the deliberations of the Task Force.
M.R.SRINIVASAN

Chairman, Task Force.

## Preface

Higher Education is crucial for the economic and social development of any country. The level of participation in higher education is indicative of the aspirations of the people for improving the quality of life. It is also crucial for national development since the skills, creativity, and research developed through higher education contribute to national prosperity.

The emerging knowledge-based economy, characterized by rapid technological changes and open and competitive economies, has placed education systems all over the world under tremendous pressure. In the coming days the nation will have to address crucial issues in education such as improvement and maintenance of standards, the role of Government, funding and equity. The liberalization of the Indian economy and the globalisation process that is unfolding deserve the serious attention of education planners and policy makers in order to ensure that the benefits percolate to all sections of society.

In Karnataka higher education is at the crossroads. The system is faced with the rising expectations of the people on the one hand, and the pressures of an economy undergoing structural reforms on the other. The day is not far off when State Universities will have to face competition from private and foreign Universities. The question arises as to whether the nature of the programmes offered and their quality can stand global competition. The answer to these questions is determined by the manner in which the system is governed, the programmes managed, institutional arrangements made and delivery mechanisms function. The critical requirement is to take a long-term view and initiate strategic measures in the areas of both policy-making and operation in order to create an education system which will meet the changing demands of the youth, society and the nation.

Karnataka has made remarkable progress in the field of education during the last decade. Bangalore has emerged as the Silicon Valley of India. The State can boast of establishing the largest number of private medical and engineering colleges in the country and has come to be known as a center for higher technical education.

The State has also emerged as a preferred destination for foreign direct investment, which in the years to come is likely to grow much faster. The well established infrastructure for higher education, assured supply of skilled labour, stable political system and good administration promise a major break through in economic growth. However there are several issues in the education sector which have to be addressed if higher education in the State is to realize its potential and satisfy the aspirations of the people.

Equity and balanced development is a key issue. The rapid expansion observed in education is benefiting only a small section of the population. Access to higher education varies widely in rural and urban areas, between men and women, between Scheduled Castes/Tribes and others and across the districts in the State. There are wide regional differences that have persisted for the last five decades. The State has to address these critical issues urgently. Better targeting of State grants to educational institutions and improvement in the quality of education are required. If we are to benefit from the huge investment we have made in education, our teachers must be motivated and equipped to commit themselves, personally and professionally, to the imparting of quality education and to improved efficiency and effectiveness.

There are strong indications that the system of higher education suffers from systemic inefficiencies. Both the institutions of higher education as well as the plethora of agencies established to coordinate and control various facets of higher education should streamline their working and management. Changing the system of governance is not merely a matter of changing rules and procedures. It involves understanding the problems at source and its attendant ramifications.

It is therefore necessary to re examine the policies in the field of higher education and suggest changes which will make the system more effective. It was in recognition of this need that the Government of Karnataka set up a Task Force on Higher Education on $30^{\text {th }}$ November 2002 to study the situation in the State and suggest the action to be taken to consolidate the gains made in the past and to address the challenges of the future. The Task Force, which consisted of eminent educationists and was headed by Dr. M. R. Srinivasan, former Chairman, Atomic Commission of India, and Secretary, Department of Energy met

18 times and deliberated at great depth on the various issues. The Task force Report has analysed the problems relating to various important issues in higher education and has made clear recommendations on the measures which the State should take to improve the situation.

I would like to thank Dr. M. R. Srinivasan for chairing the Task Force and enabling it to present an excellent Report. I also express my gratitude to Dr. Armaity Desai, former Chairman of UGC, Dr. M. I. Savadatti, Dr. Dhananjaya, Dr. Sudha Rao, Sri. K. Dinesh, Dr. M.S.Thimappa, Dr. M. R. Narayana and Dr. S. N. Hegde, who as members of the Task Force made valuable contributions during the discussions and also wrote individual chapters.

I would like to thank the Honourable Chief Minister of Kamataka, Shri.Dharam Singh and Shri. S.M. Krishna, former Chief Minister of Karnataka as well as the Honorable Minister for Higher Education Shri D. Manjunath and Dr. G. Parameshwar, former Minister for Higher Education, who were instrumental in setting up the Task Force.

I thank former Secretaries of Higher Education, Shri. Vijay Bhaskar, and Shri. K. P. Pandey, as well as the Commissioners of Collegiate Education Shri. Lukose Vallathrai, Shri. V. R. Patel and Smt. Ranjini Srikumar who facilitated the work of the Task Force.

My special thanks to Dr. M. S. Thimmappa, Vice-Chancellor, Bangalore University and Member of the Task Force for the arrangements made by him for the meetings and the hospitality offered and also to Shri. Dinesh, Director, Infosys and member of the Task Force for hosting some of the meetings at the premises of Infosys.

I thank Sri K. Srikanteswara, Deputy Secretary, Education and Dr Siddalingaswamy, who co-ordinated the meetings and attended to the printing and finalisation of the Report.
(Sobha Nambisan)
Principal Secretary to Government, Education Department (Higher Education)

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## Overview

1.1. The Government of Karnataka set up a Task Force on Higher Education on $30^{\text {th }}$ November 2002 to study the situation obtaining in the state and recommend action to be taken to consolidate gains made in the past and address challenges of the future. The composition of the Task Force and its terms of reference are given in Appendex1. The Task Force has been meeting regularly once a month in Bangalore; the first meeting was held on 9 December 2002. Initially the Task Force met for one day at a time and for many months past, it met for two consecutive days. The Task Force invited Vice-Chancellors, Principals, Deans, Registrars and Finance Officers, Representatives of Managements of Private Aided and Un-aided colleges and Representatives of the teaching community to place their views on various terms of reference before it. The Task Force wishes to place on record its appreciation of the many useful suggestions these persons have made.
1.2. Higher Education in the erstwhile State of Mysore commenced with the starting of Mysore University in 1916. Initially, arts faculties were part of the Maharaja's College, Mysore and science faculties were part of the Central College, Bangalore. Later the College of Engineering, Bangalore (now called the University Visweswaraya College of Engineering) and the Medical College, Mysore, came into being. Eminent persons from both Mysore State and other parts of the country taught at these institutions and they all established great reputations from the early years of their existence. The academicians were engaged in research in various fields and the alumni earned impressive reputations in India and abroad, both at academic institutions and in application areas such as government, industry, business and hospitals. At the time of independence, colleges were essentially located in Bangalore and Mysore. The administration of Mysore State had realized the need to set up colleges at District Head Quarters. Initially, there were colleges imparting intermediate in science and arts and later they became degree colleges. In due course, the disciplines of commerce and law were introduced. For many decades, English was the medium of instruction. Around the time
of independence, Kannada as the medium was available for such of those who wished to avail of it in the arts stream.
1.3. After the reorganization of the states in 1956, the State of Karnataka was formed. Kannada speaking parts of the Madras and Bombay presidencies and of the State of Hyderabad were joined to the State of Mysore. There were some institutions of higher education in the territory outside of Mysore State. In general, Mysore State had advanced much more in education compared to the territories which joined it after the reorganization. Some areas, especially those forming part of the Hyderabad State, had remained grossly underdeveloped. Expansion of higher education facilities took place all over Karnataka over the past several decades. Karnataka was a pioneer in allowing private colleges to be set up by various education trusts, religious mutts and minority institutions. Initially, many of these were for general degree education. Karnataka had one of the earliest privately funded engineering colleges. To meet the increasing demands by students from Karnataka and outside, many more private engineering colleges were established. In due course of time, private medical, dental, nursing, law and teaching colleges came into existence. While the private sector took the initiative of setting up these colleges, Government of Karnataka extended grant in aid to many of them to defray the salaries of the teaching staff. However due to the financial burden on the states resources, grant-in-aid was not extended to private degree colleges set up after June 1, 1987.
1.4. With the expansion in the number of colleges, the Mysore University was split into Mysore and Bangalore Universities in the year 1964. Other Universities set up were Karnataka (in 1949, at Dharwad), Mangalore (in 1980), Gulbarga (in 1980) and Kuvempu (in 1987, at Shimoga). The colleges in the respective geographical areas were affiliated to the university in that location. In the case of Bangalore University the number of affiliated colleges exceeds 400 . This situation imposes a heavy burden on the university for examination work and also renders regulating quality rather difficult. The university colleges have nearly all become postgraduate teaching institu-
tions. In nearly all the great universities of the world under graduates form a vital proportion of the student population. They have the opportunity of being lecturered to by the leading experts in front line research and thus get motivated themselves for careers in research. The clear segregation of the under graduate and post-graduate students has become a feature of all universities in India, with unfortunate results.
1.5. A trend seen, especially in India, is the setting up of single faculty universities. This started with setting up of agricultural universities when the green revolution was launched. They have certainly justified themselves by fulfilling the mission objectives of increasing the production of food grains and other crops. However with new developments in molecular biology and genetics the need for strong networking with the basic sciences is being felt. The setting up of a whole range of specialist universities such as technical universities, medical universities, dental universities, veterinary universities, law universities and so forth needs to be reviewed since they are in operation for 6 to 8 years. The taskforce is of the opinion that specialist universities are not conducive to the evolution of university education. Historically, Indian universities remained largely uninvolved in societal activities, as Macaulay wanted them only to produce clerks for the British Indian Government. Hence all applied tasks were reserved for the specialized agencies of the Government. This remains largely true even after 50 years of independence. Bringing in our universities and colleges to participate in solving societal problems remains a largely unfulfilled task.
1.6. Many of the university departments in Karnataka, and indeed in India as a whole, suffer from outmoded laboratory infrastructure. They are at a great disadvantage in imparting education using the latest techniques. So far as research is concerned, the facilities fall far short of what front-line research would need. There are some exceptions but the general situation is a matter of great concern. The lack of funds is one standard problem as most of the money comes from the Government or Governmental sponsored agencies. R and D has been supported by central agencies such as the Department of Atomic Energy, Department of Space, Defence Research and Develop-
ment Organization, Department of Science and Technology and Department of Biotechnology in the Science disciplines and the Indian Council of Social Science Research, Indian Council of Historical Research, Indian Council of Philosophical Research, World Bank, International Labour Organization, Ministry of Education and Department of Social Welfare, Department of Women and Child Development, UGC and AICTE in Humanities and Social Sciences. R and D contracted by industry or the services sector is more the exception than the rule. This situation is changing but very slowly indeed. Universities and colleges also suffer from lack of funds for up-grading teaching methods, building maintenance, hostels and even toilet facilities and drinking water. Sports grounds are a luxury to newer institutions especially in urban areas, which they can hardly afford.
1.7. The growth in the numbers of persons participating in higher education has increased enormously over the years at a compounded rate of $4-5 \%$ (Karnataka $9 \%$ ) per year in the time horizon 1960-2000. Nevertheless, the fraction of the persons of the appropriate age group in Karnataka attending colleges is 6 to $7 \%$, which while being higher then the national average, is very small when compared with some of the other countries. (For example $40 \%$ in developed countries and about $25 \%$ in southeast asia) While the quantitative expansion over the past four decades is impressive, the demand will outstrip the available space, as the desire to acquire higher education increases in society. An inevitable consequence of the quantitative expansion has been erosion in quality, barring the elite institutions, which have managed to maintain quality. The challenge for the future is to ensure a minimum level of quality for higher education with the minimum level itself improving over time.
1.8. The higher education system obtaining in Karnataka has certainly produced a large number of trained persons who are serving government, industry, business and services both in India and overseas. Many of them have also become successful entrepreneurs and professionals creating employment opportunities. Apart from working in Karnataka, many persons who have received higher education in the state are work-
ing in other states of India including in key positions. A substantial measure of equity has been achieved as persons from disadvantaged and backward communities have moved up the social ladder. The progress amongst SC and ST categories, however, needs to be assisted as their background creates impediments for advancement. In general terms, the ready availability of a large number of educated persons, including professionals in Karnataka has been one of the important factors for the growth of the information technology enterprise in Bangalore. This sector has also provided employment opportunity for women. Although the number of women taking to higher education is impressive, their progress to the upper echelons in Government or business, or even in the higher education system is still less than what it ought to be because of traditional attitudes favouring men. With regard to regional opportunities, Karnataka State has endeavoured to provide facilities across the State. However as economic activities are largely concentrated in Bangalore and Mysore, other parts of the state do experience obstacles in that those who earn degrees do not, as a general rule, enter a vibrant employment market. A contributory cause is the lack of relevance in the academic programmes to the economic needs of the region. This situation will improve only when general economic activities spread more widely across the state and academic programmes are tailored to meet local and regional needs also.
1.9. The education sector as a whole, including higher education has remained under strong control of the state administrative machinery in Karnataka, as indeed in the rest of the country. The reason for this is that much of the money for this sector has come from Government. Learned educationists of the country have over many years deplored this heavy bureaucratization of the education sector and have called for maximum autonomy to be given to the Vice-chancellors and heads of academic institutions. These experts have rightly argued that freedom in formulating curricula, introduction of new courses and new combinations, freedom in selection of academic staff, taking up of research projects for government, industry and other agencies and other such matters can only be pursued when full responsibility resides in the hands of academic leaders. While some of the leaders in Government concede the virtues of aca-
demic freedom in the abstract, in reality in the five decades after independence, the education sector has become heavily centralized and bureaucratized. While there is talk of reforms in many sectors of our activities, the education sector remains the least reformed. The education sector bears all the hallmarks of being archaic, outmoded and subject to various ad-hoc interventions by civil servants and politicians.
1.10. It is in this context that the Task Force on Higher Education looked at the issues of relevance, changes in curricula, greater choice in selection of courses, preparation for the employment market, equity, gender justice, quality, autonomy and related issues. The Task Force is acutely aware that many changes have taken place in the society as a result of opening up of the economy and the forces of globalization and liberalization. It is essential that higher education in Karnataka consolidates the gains made in the past and adapts itself to training the young men and women into a vibrant force directed to achieving faster all-round economic and social progress and also to advancing the frontiers of knowledge in all the different disciplines.
1.11. One of the first subjects that the Task Force took up for detailed study was the grant-in-aid policy. As the Task Force commenced its deliberations, it became aware that the State Government was seriously considering recommendations of a committee set up by it, which proposed that no new colleges would be brought under the GIA scheme and favoured an exit policy to phase out GIA to institutions receiving them over a period of time. The proposal favoured stopping GIA to colleges that received the grant for ten years in urban areas and fifteen years in the rural areas. The Task Force noted that private but government aided colleges accounting for $31.60 \%$ of the total number of colleges, provided education for almost $60 \%$ of the students. Private unaided colleges constituting $51.20 \%$ of the total number account for only $17.50 \%$ of the total student enrollment. Direct payment of salaries to the teaching staff of private aided colleges assured them a fair deal and thus contributed to the teaching quality being maintained. The Task Force noted that if the GIA were withdrawn from general degree colleges, the fees would have to be increased some 21 times than at present.

This would certainly affect availability of quality collegiate education to many young men and women in the state. The impact will be especially hard on students from middle and low-income families and more so on girls. The Task Force recommends that the GIA, as at present, should be continued and indeed extended to other colleges when the state finances permit it. Withdrawal of this financial support to private colleges on the ground of financial austerity is a retrograde step, as access to higher education will be denied to many students from the economically weaker sections of society.
1.12. The Task Force discussed academic programmes extensively at a number of meetings. An important feature of our system is that curricula are prescribed at the top by the university and then administered in a decentralized manner. Whatever may have been the merits of this approach in achieving a level of uniformity and standardization, it is clear this top down approach has become totally outdated. What is required is that curricula are developed in a decentralized manner involving the teachers, students, parents and the local community of employers, entrepreneurs and professionals. In the existing centralized system, the time and procedures involved in affecting changes in curricula are cumbersome. Hence innovations required to be made to meet the needs of the society are not made in a timely manner or not at all. Since many people conclude their education at the first-degree level, it is necessary that the graduates acquire both knowledge and skills required for use in their working life. A related matter is that while the importance of career-oriented courses has long been recognized, no sustained effort has been made to popularize them. This situation needs to be rectified urgently, otherwise the dislinkage between academic training and the demands of the employment market will perpetuate.
1.13. The Task Force examined the impact of the prevailing examination system on the whole field of education. It is unfortunate that the system has affected teaching and learning to an extent that everything appears to hang on to examinations with little emphasis on learning skills and with disproportionate emphasis on memorising. Skills
such as problem solving, creativity, initiative, ability to put facts together, interpretation of the facts and their application, have little place in the present system. The university spends an enormous amount of time on examinations, which is quite disproportionate to its mandate. Barely have the results been published when the work begins for the next examination. With the increase in student enrolment, the need today is to support a more decentralised system as is prevalent in other parts of the world. Hence, the Task Force suggests that the present system may be thoroughly revamped with much greater emphasis on periodic internal assessments and reduction in the number of so called public examinations. Final grading should depend on both internal assessments and marks in the final examination.
1.14. The Task Force strongly endorses the need to further develop educational opportunities by the distance mode to increase access and, at the same time, provide assurance of quality to ensure that it is not seen as second best education. In a state with availability of IT professionals, computer based on-line courses could be commissioned. While distance education using modern technology, such as video-conferencing, video and audiocassettes, and telephone, are expensive in the short run, distance education can pay for itself in the long run with economies of scale. The Karnataka State Open University in the State should be adequately staffed and provided with infrastructure if it is to offer relevant and varied courses to meet the needs of different students. This should be done on a priority basis so that the reach of the higher education system is immediately enhanced for ensuring both access and equity. Courses should be offered in both Kannada and English.
1.15. With about 350 million illiterates in the country and an 87 per cent drop out rate by 12th standard, adoption of new technologies in education that can reach farther is necessary. While all efforts in distance education have been fragmented till date, EduSat is a synergised and integrated effort in distance education. The communication technology based teaching is a viable solution. EduSat (Education Satellite) is a powerful communication tool for creating virtual classroom in an effective manner. EduSat makes it possible to conduct virtual classes in remotest places in parallel. The teacher
at the transmission end virtually becomes available to all the receiving-end virtual classrooms. This is going to make an impact at the national level and in the course of the next two years, it is expected to spread across the nation. EduSat will also concentrate on teacher training. This process can help in overcoming shortage of trained teachers by providing in-service training to the existing teachers at block level, in a time bound program, in a most economical way. A pilot project has already been launched in Karnataka to test its efficacy. The taskforce recommends that special effort should be made towards sensitization of teachers on the various aspects of e -learning to make a success of this effort.
1.16. The Task Force discussed the question of granting autonomy to colleges on several occasions. Notwithstanding the generally good progress Karnataka has made in the field of education, Karnataka has made little progress in encouraging autonomy in higher education. Many commissions and committees studying the education scene in India commencing with the Kothari Commission in 1966 have laid emphasis on the need to encourage autonomous colleges to introduce innovations and bring about accountability in higher education. Yet almost 50 years after the Kothari Commission submitted its report, there are only some 131 autonomous colleges in the country, in Madya Pradesh, Tamil Nadu, Andhra Pradesh and Orissa and strangely none in Karnataka. Institutions granted autonomy have freedom in designing courses and changing curricula to respond to the needs and aspirations of students and society. Such institutions are eligible to receive grants from the UGC. During interactions with management representatives of institutions, the Task Force learned that while they were enthusiastic about autonomy, the Government seemed unenthusiastic. One reason could be that the Government did not want to lose control on admissions. College receiving grants-in-aid fear they may lose the grants, if they opt for autonomy. The teaching staff worry that autonomy may mean more work and responsibility without any additional benefit. The opportunity of building a brand name for the institution has not been held out as a worthwhile goal. The Karnataka Government should encourage institutions financed fully by private funds to go in for autonomy. It should
also examine how some of the prestigious colleges now run by the Government or University could function in an autonomous mode and actively assist the transition. The lack of continuity of the Principal in government colleges poses a problem that needs to be resolved. The present policy of promoting the senior most person as principal in these colleges results in short tenures. For an autonomous institution to function effectively, principals and senior professors should have tenure of five or even ten years. At first glance, the teaching community may not accept this change but they can be brought on board when the over all benefits of autonomy are appreciated by them. It is a well-established practice around the world that academic leaders enjoy long-term continuity. In India, an aberration has set in of short-term tenures of key personnel in Government institutions.
1.17. The system of affiliating colleges to a university is a feature peculiar to the Indian subcontinent (India, Pakistan, Bangladesh). It arose because there were a limited number of universities (initially in the presidency capitals of Calcutta, Bombay and Madras) and there was demand to set up colleges in various parts of the country. In Europe and America, Colleges give their own degrees and the undergraduate degree is an integral part of a university. It is perhaps difficult, if not impossible, to do away with the system of affiliation of colleges to universities in our context. In the case of Universities in Karnataka the percentage of permanently affiliated colleges varies from $10 \%$ to $40 \%$. Absence of permanent affiliation prevents accessing of funds from the University Grants Commission. The Task Force is of the view that more institutions should be encouraged to seek permanent affiliation. Permanent affiliation should be granted to colleges with satisfactory infrastructure and performance record. There should be periodical inspection to monitor quality; where standards and quality have eroded, the colleges should be disaffiliated. The Task Force is of the view that a pro-vice-chancellor should deal with all matters relating to affiliated colleges on behalf of the vice-chancellor, where there are a large number of affiliated colleges.
1.18. The Task Force viewed the progress achieved in the field of technical education in Karnataka. Karnataka's share of engineering colleges is $9.1 \%$ of those in the country; the share of the intake of students however is $13.3 \%$ in the country. In the case of polytechnics, Karnataka accounts for $16.3 \%$, with an intake of $15.9 \%$. In the case of degree colleges, during 2002-2003, admissions were $82 \%$ of the intake capacity. Traditional disciplines of civil, electrical and mechanical are not as popular as in the past. Electronics, communication engineering and computer science constitute a share of about $40 \%$. There is an urgent need to create student interest in the traditional disciplines as they will continue to offer large employment opportunities. The present over- capacity in engineering degree courses is likely to be a temporary phenomenon as the economy grows at 7 to $8 \%$ per annum. A pressing problem that needs to be addressed is the large gap between the cost of engineering and medical degree education and the recovery as fees from the students. Solutions must be found to enable students from low and middle income groups to pursue engineering and medical degree education. Engineering colleges must actively pursue continuing education programmes, consultancy and take up sponsored research to augment their resources. They must pay attention at all times to quality and relevance so that the expectation of students and society are met. Polytechnic education is facing a crisis, reflected by $40 \%$ capacity not being utilized. There is an urgent need to modernize the polytechnics and redesign the courses to meet the changing needs of the employment market.
1.19. The Task Force discussed at great length the Karnataka State University's Act 2000 (KSUA), which was made operational from 2001. This act seems to have been drafted in an environment where control and compliance received greater attention than autonomy. The state has retained for itself sweeping powers to annul any order, notification, resolution or proceedings of the university which in its opinion is not consistent with the act, statutes, regulations or ordinances or is otherwise inconsistent with the policy of the state government. Such an omnibus provision is a sword of Damocles hanging over the vice-chancellor and is hardly conducive to building a cooperative relationship between the state government and university. Many provisions appear to be excessively intrusive and display a lack of confidence in the university management.

The Task Force has made a detailed set of recommendations to amend the KSUA, regarding the Syndicate, Academic Council, selection of Vice-chancellor and appointment of Registrars. The Task Force is of the firm view that the decisions on all academic matters should vest with the universities and the practice of routing them through the government should be done away with. Statutes, which have no financial bearing, do not require approval of government. It was also noted that sometimes a delay of 2 or 3 years was involved in getting approval of statutes from government. Similarly, issues relating to curricula need not be sent the Chancellor for approval.
1.20. Karnataka set up an Inter University Board (IUB) chaired by the Minister of Higher Education consisting of Vice-chancellors of all universities and Secretaries of a number of departments of the state government and directors and commissioners of education. The main functions are coordinating development of academic facilities, admissions, mobility, examinations and the like. The IUB is to study the finances of the universities and administrative problems. It is to act as a coordinating agency for financial programmes of the universities funded by the UGC and state government. A feature of the IUB is that it has a large number of administrators and a smaller number of academics. In some other states, an alternative mechanism, the State Council of Higher Education, has been set up. As per the guidelines of the UGC, this Council, headed by an eminent academic / educationist, has a larger participation of academics. The state councils are delegated specific tasks relating to monitoring the functions of institutions, their growth and future planning. In interactions with the vice-chancellors, the Task Force came to the conclusion that the State Council pattern could be followed with advantage in Karnataka also.
1.21. In pre-independent India some of the university departments In Calcutta university, Allahabad university and Dhaka university, to mention some, carried out front line research in physics, chemistry, botany and other subjects. Even in Karnataka, Central College in Bangalore in the field of sciences and Maharaja's College in Mysore in the field of humanities supported world-class research. In recent years, Bangalore, Man-
galore and Mysore Universities are collaborating with the Department of Atomic Energy, Department of Space, Defence Research and Development Organization and other such institutions on specific R and D projects in Science disciplines and the Indian Council of Social Science Research, Indian Council of Historical Research, Indian Council of Philosophical Research, World Bank, International Labour Organization, Ministry of Education and Department of Social Welfare, Department of Women and Child Development, UGC and AICTE in Humanities and Social Sciences . However a substantial boost to research in a large number of disciplines is warranted as Indian society wishes to take advantage of the emergence of the knowledge based society and also wishes to compete in the global market for its products and services. Strong R and D links with Government, State and Centre and the private sector institutions, both Indian and foreign, need to be established. A new approach on the part of university managements to secure R and D contracts is required and they should encourage the faculty members to take up such projects in a supportive environment. Basic research also needs to be supported, funds for this should come from government, philanthropists, foundations and as an overhead from the applied work done by the university. They must actively create some centers of excellence in each university around established academic leaders and act as referral centers not only for the state but the country as a whole. The academic community should be encouraged to file patents on work done by them, which could be of value in industry and other areas. The administration of the university and college must offer all possible help in this matter.
1.22. An area where urgent attention is required is that of improving quality in education. As in manufacturing industry where the quality control group reports to the chief executive, so with a university or college. The Vice-chancellors of the university and the Principal of a college must identify from among the academics a person who should head a quality improvement cell on a full time basis. This person should be chosen for his/ her commitment to quality and also his or her abilities to enthuse the heads of departments and professors to engage himself or herself in quality improve-
ment. There should be a rotation, say after 5 years, when another person takes over. Training of teachers is a vital part of the quality improvement process. Members of the teaching faculty must be encouraged to attend seminars in their areas of expertise and contribute papers. Training must extend to administrative and non-teaching staff also.
1.23. The Task Force believes that if governance of the universities and colleges is to improve, the selection of Vice-Chancellors, Principals and other academic leaders must be based on their merit, leadership and human qualities. They must then be given the largest measure of autonomy. The academic and administrative teams must be loyal and committed to the leadership. Equally, the Vice-Chancellor and Principal must delegate authority further so that a large measure of participation occurs in the management of the institution. Recruitment of teaching staff and their promotion practices should be such as to encourage teamwork under the Vice-Chancellor and Principal. If recruitment and promotion are outside the control of the Vice-Chancellor and Principal, team building will be difficult and the teaching and other staff will keep looking to other power centres for career progress. On the question of financing higher education, the Task Force believes that employers who engage the services of graduates have an obligation to make a suitable contribution. The graduate himself / herself may be obliged to make a contribution towards a higher education fund. Knowledge based industries such as information technology could be charged a cess towards the higher education fund.
1.24. The Task Force has looked at the progress made in bringing in SC and ST students into higher education. The Karnataka government has over the years made sustained efforts in encouraging SC and ST students to avail themselves of the special facilities earmarked for them. The progress has indeed been good. However, second and third generation SC/ST students are more numerous among the beneficiaries. SC/ST students from first generation learners and from rural background need to be given additional training in language and communication abilities to overcome the handicaps of
a disadvantaged background and home environment. Increasing use of audiovisual methods should be made to speedily bring them on par with the general stream. There is a case for preferentially helping SC/ST from rural areas and first generation, in a variety of ways to build up their self-confidence and receptivity. The Task Force recommends that special efforts must be made to encourage physically disadvantaged people in higher education. Guidance must be given to the students about the choice of courses where their disabilities are likely to pose minimum impediments. The institutions should provide special facilities to enable such students to carry on their studies with the least inconvenience.
1.25. An area, which requires urgent action of the Karnataka Government, is to remove impediments in the way of larger number of women enrolling for higher education and to ensure that a larger proportion of women are enabled to rise to higher levels of responsibility in higher education, industry, business and services sectors. Enrollment of women in Mangalore, Kuvempu and Bangalore universities were 53.22, 46.90 and $43.42 \%$. This may be compared with an average of $39.64 \%$ reported by the U.G.C. for the country as a whole. The number of women registering for Ph.D. was in the range of 20 to $25 \%$, although the number of women who received $\mathrm{Ph} . \mathrm{D}$. degrees was over 40\% (this implies that women completed their Ph.D. degree faster than the men). There are many areas such as provision of hostel, toilet facilities and so forth - enabling conditions to facilitate women enrollment -, which need to be attended to. Women's studies departments have yet to be established in many of the universities in Karnataka. The newly started Women's university should not be an affiliating university but a unitary university with undergraduate and postgraduate courses and emphasis on developing new knowledge and research on problems of women. Selection committees for teaching and non-teaching staff must have substantial number of women members and where feasible, such committees should have women chairpersons. Apart from women students, women teachers also need to be provided with hostel accommodations, common rooms for women teachers are also to be provided urgently. As Karnataka is already in the lead in the fields of information and biotech-
nologies, by consciously encouraging women to acquire competence in these and other knowledge application areas, it will create a strong environment for growth of these industries and thus raise the state G.D.P., in addition to giving additional income to women.
1.26. The Task Force is of the view that all students of higher education must compulsorily participate in or some activity as sports, athletics, National Cadet Corps, Social Service in rural development or urban affairs, protection of the environment organized by the institution or by NGOs or cultural activities. It is important that academic pursuit is complemented by a holistic view of life, which places importance on social conscience, moral values, the concept of sharing and teamwork. Every student must participate in at least one of the activities mentioned earlier on an active basis throughout the stay in the institution. Whether some marks or credits should be assigned for such participation may be considered.
1.27. The emerging knowledge-based economy, characterized by rapid technological changes and open and competitive economies, has placed education systems all over the world under tremendous pressure. The challenge from other countries is growing. Higher education in India is under pressure, and at risk of decline. In India, the policy of globalization of the economy is leading to globalization of the educational services and products. The nation faces hard choices on funding, quality and management. Economic and social progress in the coming years will clearly depend on the quality of human resources-well-educated and healthy people capable of adapting to the knowledge and skill demands of the fast-changing economic scene.
1.28.

Implementation of E- governance is an immediate necessity if the universities of Karnataka have to work efficiently and meet the state, national and global aspirations. Task force suggests that the universities and colleges should prepare annual IT plans and implement them methodically. For efficient administration, common software should be used for tracking of files, file movement, grievance redressal and monitor-
ing of progress. All staff members in the education department, colleges and universities must be trained in the use of software, so that governance becomes easy and efficient. The universities must immediately create database and share them with other universities whenever required. The database must be regularly updated. WAN and LAN should be set up at the earliest to enable easy sharing of information between the education department and universities.
1.29.

Since the delivery of education has acquired an international character, India's rich tradition and heritage in the field of education could contribute to the knowledge systems of developing countries particularly in the Asian and African regions. In the present global educational environment, knowledge imparting has become imperative and educational opportunities should be free from the constraints of time, space and rigidity of curricula. Though it is difficult to clearly envision the nature of things to come, the education systems in most countries, developed as well as developing, are in a state of flux. The liberalization of Indian economy and the subsequent globalization processes that are unfolding deserve serious attention of planners and policy makers to ensure that our education system remains robust, relevant and available to all sections of society.
1.30. The report of the Task Force discusses the subjects mentioned in the preceding paragraphs and other related issues in detail. Specific recommendations are included in each chapter. The Task Force hopes that the Karnataka Government will consider these recommendations and implement them to the maximum extent possible. There is a sense of urgency because after 2005, there will be competition from education institutions abroad who may open their branches in India. Our institutions should be able to stand up to competition and indeed extend their presence overseas whenever the environment is favourable.

## ACADEMIC PROGRAMMES

### 2.1.0 Higher Education and Knowledge Development: Its Mandate

The functions of higher education are to:

1. Disseminate knowledge through degree programmes, offer other non-degree courses that students take along with the degree or after the required degree, continuing education for the graduates of the system and extension education for those who would not be able to be the candidates for the above programmes such as farmers, technicians, and those with less than the required qualifications for higher education but to whom the university wishes to extend its knowledge for the nation's social and economic development. Finally, the role of the university is to extend its knowledge through field based action on community problems and issues.
2. Generate knowledge through research activities, action research, and field based action projects on issues of concern.
3. Develop capacity in the learner for skills of problem solving, creativity, and initiative to undertake lifelong learning.

### 2.2.0 Shift in the Enrolment

Even with only 6 to 7 per cent enrolment from the age group of 17 to 23 , there has been a remarkable shift from the elite to the masses. The size of the system is said to be the second largest in the world. Hence, the type of student entering the system has changed with colleges located in district and taluka towns. Students enter with handicaps associated with the disadvantaged groups: type of families with little or no academic stimulation and schools that make poor academic inputs. Hence, students come with less academic preparation than in the early days of the universities in India when higher education was available to families with family wealth, or from the families where parents were in business or the professions.

### 2.3.0 Implications for Higher education

1. In a situation where a large number of students are first generation learners in higher education, they come with poor preparation from the schools they have attended. They lack capacity to use the language of instruction or use the library due
to inadequate knowledge of English, hence the entry points in the college and the university will need to provide special inputs/bridge programmes including language and writing skills, and the use of resources such as the library and the laboratory, as well as the TV Educational Channel, the radio, CDs and such other means of teaching and self-learning.
2. Meritocracy will have to undergo considerable modification as a concept as there is no level playing field. Intelligent students who have suffered such handicaps cannot compete equally with those from advantaged families who have been to better schools. This is not related to only the social handicaps faced by the SC/ST. These persons also belong to the economically disadvantaged in both urban and rural areas. Hence, the concept of merit may have to be replaced by allowing other means of testing a candidate's ability such that it does not require huge sums of money in coaching classes to get admission as in engineering and management courses. The army has developed excellent tests. The universities must come together and rethink their method of admission if access and equity are to become actualities. In fact, such tests should be useful even if the student does not pursue higher education but it becomes recognised also for entry into employment.

### 2.4.0 Challenges and Social Realities: Achieving Excellence

1. The Government has acceded to India's entry in a globalised world in which competition and the survival of the fittest is the mantra with liberalisation of the economy, encouragement of privatisation and global treaties such as the WTO and GATS facing us from 2005. However, instead of Government support to make education qualitative to face the competition, it is decreasing financial support in higher education, axing teaching positions that already exist, and is unable to support the emerging frontier areas of knowledge. By supporting a few institutions of higher quality, it cannot provide the human resource, which India is going to need to face the competitive challenge. Moreover, this is a vast country and it requires a very large human resource for governance, for its market economy, agriculture, industry and the professions including teachers at all levels of education. Hence, while the social reality demands higher in-
puts in education to develop excellence, in fact, the response of the Government is the opposite.
2. There is a duality in our social reality and the emerging new technological revolution of ICT, both existing side by side. While technological change appears inevitable, it is imposed on a traditional society, which continues to reflect obscurantism, feudalism, exploitation and injustice, all of which are endemic in our relationships such as with respect to caste, gender, and language. These realities affect the learner and require our serious consideration for the nature of the educational inputs necessary to change the attitudes of the learner for a society appropriate to a modern India of the twentyfirst century in a democratic and pluralistic society. Technological change must also be accompanied by social change.
3. Increasingly, there is emergence of negative forces of wasteful consumerism, sectarianism, fundamentalism and violence, particularly affecting vulnerable groups of women and children. These social realities need our attention if education is to bring social change.

Can education meet these challenges? How can we organise teaching and learning to meet them? What supports can we expect from the State and the voting public for the higher education system? Excellence is not merely a subject based performance evaluation. It is achieved only when education is viewed in reference to the societal context, the purpose it serves, and the quality of human being who is responsive to community concerns and issues, sensitive, caring, not exploitive of relationships, and practices probity in public life. Therefore, the higher education system needs to deliberate on the curriculum in the local, state and national context and the international imperatives affecting the country, which, in turn, must affect curriculum planning, and to aim towards a human being, who will not only be a subject specialist, but also a contributor to civil society.

### 2.5.0 Systemic Inputs Required of Institutions for Qualitative Output

1. The vision and mission of the organisation collectively arrived at in order to achieve the desired goals in the context of the nation and the desirable personal qualities of the graduate.
2. Democratisation of the system and participation by all its stakeholders.
3. The relevance of the curriculum to the needs of the students, parents, the community (including employer but not exclusively), the nation and the changes in the external international environment.
4. Co-curricular activities that enhance the capabilities and all the faculties of the learner.
5. The system of evaluation, which measures the specific objectives, set out by the course.
6. The method of recruitment, selection and placement of the teachers that ensures objectivity, quality and the adherence by teachers to the professional code of ethics.
7. Utilisation of a range of teaching methodologies to make education stimulating, inspire self-learning (learn to learn) and feelings of competence and effectance in the learner.
8. Selection of students and the specific additional inputs where required to make up the deficits due to social, economic and past educational factors.
9. The promotion of a learning environment, and academic activities such as research and publications.
10. Adequacy and the proper regular maintenance of physical infrastructure and equipment including library, laboratory, computers, sports, dance and music.
11. Administrative support to enhance academic objectives, efficiency and efficacy, transparency, autonomy and accountability. Academic administration requires it to be learner and teacher centred. It is not administration for its own sake.
12. Community work on issues and problems, utilising the knowledge and skills acquired by the higher education system and, at the same time, learning from it and developing new knowledge from the interactive experience. Utilising the process for developing attitudinal change towards social realities through self-reflection on one's own sociocultural context.
13. Self-appraisal by teachers, staff and student feedback for bringing about constant improvement of the system.
14. Continuing education for teachers, staff and graduates.

Taking into account the above, it may be stressed that systemic change is holistic and not sequential. How and by whom is it to be promoted? One curriculum does not fit all; that is the worst element of our present curricula set at the top of the structure by the university and expected to be administered in a decentralised manner. The strategies to promote the needed changes at the systemic level, for developing inputs to achieve desirable quality in the system, will occur best in a decentralised system where all the stake holders have an opportunity to contribute---the teacher, the student, the parents, the local community of employers, entrepreneurs and professionals. The curriculum should meet the need for knowledge as also for a future in the world of work. It can best be achieved in the context of the local environment.

### 2.6.0 The Curriculum

### 2.6.1 Relevant and Experiential Curricula

We need to ask the question how far education is only to cultivate the mind to produce an intellectual, may be a liberal intellectual, or is it also for application in the real world of work, that is, the integration of the head and the hand, of theory and practice. Theory develops through both research and practice experience but in academia we have given greater value to one and not the other. Hence, the syllabus has to be both relevant and experiential, thinking as well as doing through hands-on experience. As for student enrolment, 88.8 per cent are enrolled at the bachelor's level, 9.5 per cent at the master's, about 0.7 per cent at the Ph.D. level, and the rest, 0.9 per cent in diploma or certificate programmes (UGC Annual Report, 2000-2001). If the bulk of our graduates are terminating at the bachelor's level and it remains in effect the main degree, it is essential that we prepare graduates, at least those who desire it, with both knowledge and skills related to their subject area for use in the world of work. We give below examples of the incorporation of skills related to the subject area:

* Commerce courses: application in business, banks, insurance, import-export, agribusiness, agri-services, and countless other settings. In fact, the entire course must have application component.
* Languages and literature: Print and media industries such as scripting, proof reading and editing, desktop publishing, and news reporting.
* History: cultural and heritage tourism
* Sociology, economics and political science: development institutions, public administration institutions such as panchayats, zilla parishads and municipalities, cooperatives (these are only suggestive) and various corporations such as for backward classes, and tribal development departments. The list can be endless.
* Psychology: school and college counsellors, vocational counsellors, industrial workers' counsellors, and counselling for other groups such as disability, addiction, marriage, and child guidance.
* Life sciences (botany and zoology): tissue culture, floriculture, sericulture, wasteland development, grasslands development, forestry, horticulture, pisci-culture, poultry, animal husbandry, and numerous such activities.
* Chemistry: the developments in the chemical industry, petroleum industry, polymers and numerous applications.
* Physics: have numerous applications in the modern and sunrise industries such as electricity, electronics, and space.
While the above suggestions are only illustrative, in fact, the opening of the service sector allows immense opportunities for both employment and self-employment. It needs to be researched for identifying the areas that could be integrated with the subject specialisation, or, offered separately as certificate or diploma that the student can take along with the degree.

Such application orientation would lead to the development of more relevant programmes for urban and rural students, differentiating between their local needs, and decreasing migration of the rural educated to urban areas where they encounter many hardships, and do not find suitable employment opportunities. The courses could be integrated into the curriculum to
give a career orientation. In fact, it should be made mandatory for the university to offer such courses at the undergraduate level with linkages to the post-graduate level. However, it should be voluntary for the student to take such courses including a fully academic sequence without being required to take the career- oriented option. Enhanced fees may be charged with minimum burden on the disadvantaged student. However, such courses must provide for teachers who are specialists in the subject, infrastructure and linkage to the potential employing organisations through the field placements of students to gain work experience. The programme must also have forward linkages at the postgraduate level. Past experience has shown that, without such inputs, such courses cannot deliver the objectives with which they have been set up.

The UGC has also developed 32 model curricula in collaboration with experts. Certain Universities were identified as Curriculum Development Centres for undertaking these tasks. A few follow-up workshops were held with the Chairpersons of the Boards of Studies in the subject to discuss implementation. Similarly, the Boards of Studies of each University in Karnataka may be asked to take up the work of examining these model curricula, building on the existing UGC model if available in the concerned subject, and also identify the career orientation or applied component of the subject area. If some work has already been done in Karnataka, the problems inherent in their implementation should be identified and solved both by the University and the Government.

### 2.6.2 Interdisciplinary Approach

Interdisciplinary approach in teaching, research and field action programmes needs to be encouraged. Solving problems of the twenty-first century will require an interdisciplinary approach, as our uni-disciplinary approach will remain insufficient. We need to evolve courses such as environment studies, social development/social work, water and land management, women's studies, urban development and rural development, biotechnology, nuclear science, space science, materials science and such similar subjects that are
interdisciplinary and problem-oriented. The Universities could identify such subjects for introduction, which have also an applied component with potential for employment.

The Task Force wishes to give a very definitive direction for changes in the curriculum for the twenty-first century keeping in mind geographical diversity even within the State, and the differing needs of students. Thus, there is no requirement that all universities offer the same subjects if they do not have either area relevance or they do not meet the needs of the community and its students. In fact, feasibility studies should be undertaken before introducing new courses. All courses should be reviewed periodically for their relevance.

### 2.6.3 Open and Distance Learning

The greatest need of the day is for enhancing the educational opportunities through the distance mode to increase access, and to provide quality assurance and relevance in higher education, as this is the one alternative in a country with its teeming millions and a burgeoning youth population graduating from the school system, knocking on the doors of higher education. Hence, the Karnataka State Open University should be given the necessary support to bring it on par with the open universities in developing and developed countries. It is evident that, today, the open learning system is not only an accepted mode of education, as it has the flexibility to enroll larger numbers of students than the conventional universities, but also opens up higher education for those who must simultaneously perform other life roles as earner, spouse and parent, and provide opportunity for continuing education to persons of all age groups, gender and occupations such as farmers, technicians and professionals. As KSOU is the only university in the Sate, the State should provide a block grant to facilitate this University to achieve both quality and relevance. Once the basic requirements are fulfilled, the University would be able to earn adequate resources with the popularity of its course offerings. The economies of scale are not possible in the early years of an Open University system and, therefore, it needs support in its initial phase.

Among other priorities, this university has a mandate to serve the disadvantaged sections of society. It must offer its courses in both Kannada and English medium in a variety of courses advantageous to this group and provide State scholarships for making access possible. Education provided to the disadvantaged sections of the society should be such that is comparable to the education provided to the advantaged section of the society and, therefore, it should be the education of choice for all socio-economic groups.

It is necessary to understand the difference between the correspondence courses of the regular universities and the Open university programmes. Correspondence courses are no longer favoured either by the UGC or the Distance Education Council and these are being phased out in all universities in India. The courses will receive funding from the Distance Education Council provided that they offer the distance mode while the UGC has stopped giving any financial assistance to all courses, correspondence or distance, since the establishment of the Distance Education Council. All such courses have to be converted using the technology of distance education. The Universities persist in conducting such courses to add the much needed revenue and, therefore, have the tacit approval of the State. This situation should be reviewed since it is no longer in favour as an educational mode for promoting education. If at all these courses are continued for any reason, especially for fear that universities from other States might enroll the students from Karnataka, then the State can permit them to offer courses only in the English medium to compete with the universities of other States. However, providing distance education in Kannada medium should be the prerogative of the KSOU. Permitting the other universities to run courses in both face-to-face and correspondence mode would result in two types of products being produced by the same university, with one being seen as inferior to the other, especially when the examinations are different.

However, conventional courses in the university could have the option to offer some subjects by the distance mode either by upgrading their technology, or by a MOU with the State Open University or IGNOU, to offer some courses to their students in the
distance mode and some in the conventional mode. Courses by dual mode would allow students to access courses not offered by their University and even prevent duplication of some types of courses especially where enrolment tends to be low. Secondly, the dual mode could also allow the option to the college or university to double enrolment by admitting two sets of students, one in each semester (term). Students admitted to the conventional mode in one semester could offer distance mode in the next, thus allowing a second group to be admitted. Money earned by the conventional university through courses offered in the distance mode, should not be diverted for the conventional system as it discriminates against the students in the distance mode. The funds must be ploughed back for the development of the distance mode, especially to upgrade the technology.

The Task Force strongly endorses the need to further develop educational opportunities by the distance mode to increase access and, at the same time, provide assurance of quality to ensure that it is not seen as second best education. In a State with availability of IT professionals, computer based on-line courses could be commissioned. While distance education using modern technology, such as video-conferencing, video and audiocassettes, and telephone, are expensive in the short run, distance education can pay for itself in the long run with economies of scale. The only university in the State offering distance education needs to be adequately staffed and provided with infrastructure if it is to offer relevant and variety of courses to meet the needs of different students. This should be done on a priority basis so that the reach of the higher education system is immediately enhanced for ensuring both access and equity. The language in which courses are offered should be both Kannada and English.

Universities may even develop career planning through the distance mode and post the student's bio-data on the Internet for which the student can pay a small charge. Employers would find it most useful to access through the university placement service.

### 2.6.4 The Concept of Community Colleges

The concept of community colleges originated in the United States, especially to bring disadvantaged students into the educational system and to provide life and work related
skills. For a two-year degree course, the student would get an Associate Degree. The qualification was accredited for students wishing to enter the university. Thus, it was not a dead-end qualification like our programmes under the Boards of Technical Education in India. Community Colleges are financially supported by the State and Local Government and tuition fees, which are purposely kept low to attract students who cannot afford higher education. Trustees manage the colleges and local opinion is taken into consideration in evolving courses. Courses may be either skills oriented or for personal development. Admission criteria are very flexible like in open universities.

The UGC had set up a group of four academicians, two Vice Chancellors and two College Principals, to study and report on community colleges in the United States of America. The United States Information Agency sponsored the group for a visit to community colleges in the USA for a month from September to October in 1994. They submitted a report to the UGC in which they gave alternative possibilities.

1. The concept be integrated in the existing degree programme by increasing its duration for one year on an experimental basis in a few selected colleges. It suggested that the first two years may be restructured to become vocation and job oriented and, in the next two years, the students would pursue the specific area of specialisation/discipline in the degree. Such students should be given Honour's degree to distinguish them from the 3-year degree graduates. Such students should be eligible for a Master's degree in one year. (Note of the Committee: Perhaps, the first two years should be treated as Associate Degree or Diploma so that students can terminate if they so desire. The priority for the programme should be given to colleges in disadvantaged areas. Subsequently, the students should be able to enter any degree programme in the second and third year.)
2. Taking into consideration the present constraints, the career orientation to undergraduate education (as per the VIIIth/IXth Plan scheme of the UGC) may be strengthened as an alternative.
3. Offer job oriented courses in the morning, evening and on weekends using the present infrastructure, and allow flexibility in terms of time, duration, and pace of taking the subjects.
4. Community colleges as independent institutions mobilising community resources. (Note of the Task Force: If these are to be located in areas serving disadvantaged students, who most need such career oriented courses, the lack of community financial capacity in such areas will defeat the purpose for which they are to be set up. This is not the philosophy of the community colleges in the USA.)
5. Modification of current polytechnics to provide upward mobility to students to join the college. (In fact, the graduates of all vocational programmes at the plus two levels should be entitled to enter the university system. Only then these courses will become attractive and provide earn-and-learn potential to students to continue higher education.)
6. Admission policy should be as in the Open University system.

In India, a few community colleges have come into existence but each follows its own model such as post bachelor's/master's programmes (Pondicherry University), a certificate programme concurrent with enrolment for a degree (college in Chennai). Avinashlingham Institute for Home Science and Higher Education (a deemed university), Coimbatore, has developed its own pattern for its women students.

The Task Force recommends that the State Government and the Universities examine the concept of community colleges to extend relevant education at a lower cost to the students in disadvantaged situations and areas of the country. However, it could also be an extra diploma from a stand-alone institution to be picked up by the student while pursuing the degree, if the college does not offer such courses for want of student interest. The infrastructure costs may be provided by the State and recurring costs maintained through fees with lower cost to the disadvantaged student for whom the State should meet the difference in fees paid and payable.

It may also be possible for industries (service, manufacturing or ICT) to fund such courses on campus for which $100 \%$ tax incentive may be given. Land may be given at low cost or, on lease, if space is not available on the college campus, or, an independent community college is affiliated to the university for an Associate Degree. Power can be given at non-commercial rates. A pilot project may be started with three such community colleges in Bangalore University, two in Mysore University and one each in the other universities.

### 2.7.0 Semester and Credit System, and Cafeteria Approach

The Task Force strongly supports the semester and credit systems and the cafeteria approach in selection of courses for better curriculum planning and to give students the opportunity to take courses across disciplines and faculty. There should be no attempt to make programmes uniform across universities. There should be adequate diversity, which allows choice to students for selection of a college or a university. The credit system should also allow a student to transfer credits from one university to another.

### 2.8.0 Teaching/Learning Methodology and Technology

Teachers need to refocus their emphasis from teaching to learning, from focus on the teacher to focus on the learner. Students need to be able to question, develop critical thinking, develop capacity to initiate their own learning, and develop creativity. They need to learn how to assemble information, sources available, how to organise and analyse it and deduce generalisation from it. Learning should encourage peer group activity through projects, make class presentations and use electronic media (computers, videos). Not all topics need to be covered in the classroom as some may be given for independent study with library references and teacher consultation where required. To match these methodologies, the nature of evaluation would need a drastic change from eliciting memorised information to evaluating the type of capacities mentioned above.

### 2.9.0 Holistic Education: Head, Hand and Heart

In the foregoing, head and hand have been mentioned but not the heart. Educational objectives include thinking, doing and feeling. Hence, education must include emphasis on values, especially those enshrined by the Founders of our Constitution: social justice and equity in a democratic structure and a pluralistic social order, understanding of human rights (obverse is duties), the value of life, respect for the worth and dignity of the individual including gender justice, respect for the environment and its sustainability. While a basic course could be developed for all faculties at the undergraduate level, the best learning would take place through implementation in action projects undertaken in the field. Projects should be on issues in the area where the institution is situated and should be a focus, which is interdisciplinary and sustained over a period of time. For example, universities and colleges could have linkages with schools in their area/district for upgrading their quality, as they are the feeder institutions for the higher education system. The students could provide the much-needed co-curricular and extra curricular activities for the children while the college and university teachers could upgrade the teaching.

### 2.10.0 Social Sciences Inputs in Professional Courses

Social sciences should be integrated in professional courses such as medicine and technology so as to better understand social forces and implications for their practice. Narrow and particularistic specialisations do not develop a holistic perception of their role in the nature of the society where they practice and its cultural orientation. Thus, adoption of technology or practice of health becomes a problem. All students must develop a scientific and rational temper.

### 2.11.0 Language

The problems in higher education have increased with the student's earlier medium of instruction being in the mother tongue or the language of the State. Students come from two streams, those with education in English in school and those from schools with the language
medium of the State. While it is evident that students should have a good base in their own language, when they enter college, their English is inadequate to compete with others for whom the language of instruction in school has been English. This divide is further increased if the student continues undergraduate education in the mother tongue. Such students face difficulties at the postgraduate level and in jobs at the graduate and postgraduate levels, most of which are in English.

The Task Force believes that the State Government needs to address the issue of language medium for students sooner than later as there are two competing streams: students from English language medium who face no problems and students from other language mediums who face a major handicap. Without adequate English, students are already very handicapped not only in higher education but also in competing for jobs. This gap will grow very wide as we enter an area of global competition where English has become the language of international communication. Therefore, we cannot remain chauvinistic and deprive our future generation from entry into a market both Indian and global where the opportunities are greatest. India has a lead over Japan and China but both of them are making attempts to catch up. The need to upgrade English language in the professional courses should be given attention also, if the student is to compete successfully in employment.

The Task Force encourages the institution of English competency from primary school and means to achieve fluency before the completion of school even for those studying in their respective languages. The Central Institute for English and Foreign Languages, a deemed university funded by the UGC, may be called upon to provide training to teachers for teaching English to students for whom it is a second language. In the meanwhile, funding should be made available at the college and university levels to provide English language teachers for bridge courses, for which, the above Institute could be called upon to draft the course as also to train the teachers.

Furthermore, with the BPO revolution taking place and many such opportunities likely to emerge as offshore processing becomes widespread, students need opportunities for learning other languages such as French, German, Italian, Arabic, Spanish, Russian, Chinese and Japanese. Universities need to provide these languages at the undergraduate and postgraduate levels with teaching methods that provide language skills in a shorter period of time.

### 2.12.0 Examinations

The Task Force has examined the effects of the examination system on the whole educational system. It is unfortunate that the system has affected teaching and learning to an extent that everything appears to hang on to the examination system with little emphasis on learning skills and most emphasis on memorisation. Skills such as problem solving, creativity, initiative, ability to put facts together, interpretation of the facts and their application, have little place in the present system. The university spends an enormous amount of time on examinations, which is quite disproportionate to its mandate. Barely have the results been published when the work begins for the next examination. With the increase in student enrolment, the need today is to support a more decentralised system as is prevalent in some other States.

Hence, the Task Force suggests that the present system may be thoroughly revamped. The university may set the examination only for the third year of undergraduate studies and for the second year of post-graduate studies. The first two years of the undergraduate and the first year of the post-graduate programme should be internal to the college/university department. The results obtained should count for $30 \%$ of the final results and, as the system develops experience, it could increase to $40 \%$. The internal marks should be displayed separately but the declaration of the class should be on the total of both internal and external marks. The Task Force is aware of malpractices in internal assessment, but because of the severe limitations of the present examination system, it is necessary to attempt change keeping in mind the attendant problems and the best means of solving them. The university
must take note of colleges which are systematically too high in their internal evaluation and take necessary action. The internal examinations can have components such as tests, project work and assignments and the examination at the end of the semester should all be directed at honing intellectual skills rather than memory. The college/university department can have external examiners along with the internal for the end of year examination. Teachers are not paid for evaluating their own students, but for the external examiners payment is required and the examination fee could be used for the same. Special workshops may be held for teachers in each discipline to develop their skills in evaluation that go beyond testing memory. In the case of autonomous colleges/university departments, all examinations would be internal.

We believe that, without sweeping reforms in the system of examinations, no change will be possible, either in developing the curriculum or in the use of a variety of teaching methods. The new system may be tried for about five years to see how it works and bring in improvements from year to year. If it works reasonably well, it should be continued.

### 2.13.0 Student Admissions

The Task Force is not in favour of centralised admissions. Admission to the courses offered by an institution is the logical activity of the institution. The only exception is where such centralised admissions are already in operation such as through CET and is working well. However, the Task Force believes that the tests should be such as those which tests the student's abilities rather than those which require expensive tutorials working to the disadvantage of many students who cannot afford them. The tests should not require such prior tutoring but should be on the lines of vocational tests. This matter was referred to earlier in discussing the concept of meritocracy.

The Task Force would also like to encourage greater mobility of students by giving them freedom to select the university of their choice at any stage of undergraduate and post-
graduate education. It is suggested that $25 \%$ of seats should be reserved for local students, $65 \%$ for students from anywhere in the State, and $10 \%$ from outside the State. This mobility should also be across disciplines with greater interdisciplinary programmes being developed by the university. There should also be flexibility in lateral mobility from one university to another during the course, such as in the second or third year of undergraduate studies, accepting the credits earned in the previous university. Students cannot derive education they feel that is best for them unless we liberalise our system and make it sufficiently flexible for students to pick and choose and assemble courses, which meet the learner's need.

### 2.14.0 Selection of Teachers and Annual Evaluation of Performance

2.14.1 Selection Committees must have experts, constituted as per the UGC requirements, and no external or internal pressure should be permitted. The process must be entirely transparent and there should be an agreed list of parameters for selection. Selection should be open to qualified candidates on an all India basis for availing of the best teachers for the higher education system. The Task Force does not favour the selection of teachers or other staff through a centralised State Commission for either Colleges or Universities.
2.14.2 Teaching requires capacity for good communication. The candidate should be required to give a seminar to judge the capacity.
2.14.3 Self-evaluation and student feedback should be encouraged, the latter especially at the postgraduate level and in professional institutions. Safeguarding standards is a process which is possible through various means, such as evaluation of teachers, evaluation of teaching and administrative departments, including the office of the Vice Chancellor and Registrar, as also the Department of Education in the State Government, and the office of the Chancellor. Modalities for evaluation and self-evaluation need to be worked out. One does not have to wait for NAAC to undertake this task. Annual evaluation procedures can be set in motion by the colleges and the universities.
2.14.4 Providing housing is the best way to attract good candidates, with large cities facing a major problem. Universities should be helped especially to develop
such housing and, if all the universities and colleges collectively work out a loan system with HDFC and similar organisations, much could be achieved to expand the housing stock to attract the best persons. Where land is not available, housing can be developed as a cooperative off campus, or, even staff may be enabled to purchase anywhere in the city. With the university, as an employer, making a block payment through salary deduction, such organisations giving housing loans benefit through decrease in administrative costs and, therefore, they can provide cheaper loans.
2.14.5 The Task Force has appreciated the fact that the State of Karnataka has a medical reimbursement scheme. The Government may examine whether it would be further productive to have all the teachers, students and other staff on a group health insurance scheme worked out with one of the many insurance companies now emerging that has increased competition. It would further make the profession attractive in these days of increasing competition from other professions, which offer attractive packages and take away the best graduates.
2.14.6 A plan to provide academic advancement to teachers would raise the quality of performance. Teachers must have time in their schedule to undertake research, be able to attend seminars and conferences in their area of specialisation. Such activities would widen their horizon and add richness to their teaching
2.14.7 Incentives to teachers from the Government could include house-sites and lower interest rates on house construction, half payment for subscription to journals, a grant for books with a ceiling on the amount to be spent annually, and a half subscription to one professional organisation related to the teacher's area of teaching. If we wish to attract the best teachers to the system, attempts will have to be made to provide some benefits in an increasingly competitive market with far more lucrative positions for those who pass out in the top ranks of the university. At one time, teaching was one of the better-paid jobs and attracted the best minds. Today, the educational system is losing out to the market and the civil services.

### 2.15.0 Support Systems

Support activities for students such as counselling services, cultural activities, adventure and sports, alternatives for social service or NCC, must be available. These activities should lead to teamwork, leadership development and personality development of students.

Teachers also need opportunities for quiet study, space to see students, and recreation activities. Opportunities should be made available through appropriate infrastructure.

### 2.16.0 Conclusion

There will have to be a total revolutionary approach in dealing with the academic matters in the system if the desired change has to respond to the demands of the twenty-first century. Policy makers and educators will be responsible if our citizens of tomorrow are shortchanged by shortsighted policies and limited approaches in solving the present impasse. Colleges and Universities have been struggling to make change but they need policy and financial support of the State to achieve the goals.

### 2.17.0 Summary Of Recommendations

1. The functions of higher education are to disseminate knowledge, generate knowledge, and develop capacity in the learner for skills of problem solving, creativity, and initiative to undertake lifelong learning. These should be kept in focus in the development of higher education.
2. In a situation where a large number of students are first generation in higher education, the entry points in the college and the university will need to provide special inputs/bridge programmes including language and writing skills, and the use of resources such as the library and the laboratory, as well as the TV Educational Channel, the radio, CDs and such other means of teaching and self-learning.
3. Meritocracy will have to undergo considerable modification as a concept as there is no level playing field. Intelligent students who have suffered handicaps cannot compete equally with those from advantaged families who have been to better schools.

This is not related to only the social handicaps faced by the SC/ST. These persons also belong to the economically disadvantaged in both urban and rural areas. The concept of merit may have to be replaced by developing means of testing a candidate's ability such that it does not require huge sums of money in coaching classes to get admission as in engineering and management courses. The army has developed excellent tests. The universities must come together and rethink their method of admission if access and equity are to become actualities. In fact, such tests should be useful even if the student does not pursue higher education but it becomes recognised also for entry into employment.
4. Excellence is not merely a subject based performance evaluation. It is achieved only when education is viewed in reference to the societal context, the purpose it serves, and the quality of human being who is responsive to community concerns and issues, sensitive, caring, not exploitive of relationships, and practicing probity in public life. Therefore, the higher education system needs to deliberate on the curriculum in the local, state and national context and the international imperatives affecting the country, which, in turn, must affect curriculum planning, and to aim towards a human being, who will not only be a subject specialist, but also a contributor to civil society.
5. The strategies to promote the needed changes at the systemic level, for developing inputs to achieve desirable quality in the system, will occur best in a decentralised system where all the stake holders have an opportunity to contribute---the teacher, the student, the parents, the local community of employers, entrepreneurs and professionals. The curriculum should meet the need for knowledge as also for a future in the world of work. It can best be achieved in the context of the local environment.
6. Application orientation would lead to the development of more relevant programmes for urban and rural students, differentiating between their local needs, and decreasing migration of the rural educated to urban areas where they encounter many hardships, and do not find suitable employment opportunities. The courses could be integrated into the curriculum to give a career orientation. In fact, this should be made mandatory for the university to offer such courses at the undergraduate level with linkages to the post-graduate level. However, it should be voluntary for the student to take such
courses including a fully academic sequence without being required to take the carrier oriented option. Enhanced fees may be charged with minimum burden on the disadvantaged student. However, such courses must provide for teachers who are specialists in the subject, infrastructure and linkage to the potential employing organisations through the field placements of students to gain work experience. The programme must also have forward linkages at the postgraduate level. Past experience has shown that, without such inputs, such courses cannot deliver the objectives with which they have been set up.
7. The Committee strongly supports the semester and credit systems and the cafeteria approach for better curriculum planning and to give students the opportunity to take courses across disciplines and faculty. There should be no attempt to make programmes uniform across universities. There should be adequate diversity, which allows choice to students for selection of a college or a university. The credit system should also allow a student to transfer credits from one university to another.
8. Interdisciplinary approach in teaching, research and field action programmes needs to be encouraged. Solving problems of the twenty-first century will require an interdisciplinary approach, as an uni-disciplinary approach will remain insufficient. The Universities could identify such subjects for introduction, which have also an applied component with potential for employment.
9. The Task Force wishes to give a very definitive direction for changes in the curriculum for the twenty-first century keeping in mind geographical diversity even within the State, and the differing needs of students. Thus, there is no requirement that all universities offer the same subjects if they do not have either area relevance or they do not meet the needs of the community and its students. In fact, feasibility studies should be undertaken before introducing new courses. All courses should be reviewed periodically for their relevance.
10. The Task Force strongly endorses the need to further develop educational opportunities by the distance mode to increase access and, at the same time, provide assurance of quality to ensure that it is not seen as second best education. Conventional courses in the university could also have the option to offer some subjects by the distance
mode. In a State with availability of IT professionals, computer based on-line courses could be commissioned. While distance education using modern technology, such as video-conferencing, video and audiocassettes, and telephone, are expensive in the short run, distance education can pay for itself in the long run with economies of scale. The only university in the State offering distance education needs to be adequately staffed and provided with infrastructure if it is to offer relevant and variety of courses to meet the needs of different students. This should be done on a priority basis so that the reach of the higher education system is immediately enhanced for ensuring both access and equity. The language in which courses are offered should be both Kannada and English.
11. The Task Force recommends that the State Government and the Universities examine the concept of community colleges to extend relevant education at a lesser cost to the students in disadvantaged situations and areas of the country. However, it could also be an extra diploma from a stand-alone institution to be picked up by the student while pursuing the degree, if the college does not offer such courses for want of student interest. The infrastructure costs may be provided by the State and recurring costs maintained through fees with lower cost to the disadvantage student for whom the State should meet the difference in fees paid and payable.
12. It may also be possible for industries (service, manufacturing or ICT) to fund such courses on campus for which $100 \%$ tax incentive may be given. Land may be given at low cost or, on lease, if space is not available on the college campus, or, an independent community college affiliated to the university for an Associate Degree. Power can be given at non-commercial rates. A pilot project may be started with three such community colleges in Bangalore University, two in Mysore University and one each in the other universities.
13. Selection Committees for teachers must have experts, constituted as per the UGC requirements, and no external or internal pressure should be permitted. The process must be entirely transparent and there should be an agreed list of parameters for selection. Selection should be open to qualified candidates on an all India basis for availing of the best teachers for the higher education system. The Task Force does not favour
the selection of teachers or other staff through a centralised State Commission for either Colleges or Universities.
14. Self-evaluation and student feedback should be encouraged, the latter especially at the postgraduate level and in professional institutions. Safeguarding standards is a process, which is possible through various means, such as evaluation of teachers, evaluation of teaching and administrative departments, including the office of the Vice Chancellor and Registrar, as also the Department of Education in the State Government, and the office of the Chancellor.
15. Providing housing is the best way to attract good candidates, with large cities facing a major problem. Universities should be helped especially to develop such housing and, if all the universities and colleges collectively work out a loan system with HDFC and similar organisations, much could be achieved to expand the housing stock to attract the best persons.
16. The Task Force has appreciated the fact that the State of Karnataka has a medical reimbursement scheme. The Government may examine whether it would be further productive to have all the teachers, students and other staff on a group health insurance scheme worked out with one of the several insurance companies now emerging that has increased competition. It would further make the profession attractive in these days of increasing competition from other professions, which offer attractive packages and take away the best graduates.
17. A plan to provide academic advancement to teachers would raise the quality of performance. Teachers must have time in their schedule to undertake research, be able to attend seminars and conferences in their area of specialisation. The State Government must make provision to assist teachers to become members of one professional association of their choice, subscribe to one journal and purchase books in their subject area (up to a specified financial limit), provided that the teacher is willing to contribute $50 \%$ for these benefits. Such benefits are necessary for thought leadership and research, if it is to be encouraged.
18. Teachers need to refocus their emphasis from teaching to learning, from focus on the teacher to focus on the learner. Students need to be able to question, develop critical
thinking, develop capacity to initiate their own learning, and develop creativity. They need to learn how to assemble information, sources available, how to organise and analyse it and deduce generalisation from it.
19. Education must include emphasis on values, especially those enshrined by the Founders of our Constitution: social justice and equity in a democratic structure and a pluralistic social order, understanding of human rights (obverse is duties), the value of life, respect for the worth and dignity of the individual including gender justice, respect for the environment and its sustainability. While a basic course could be developed for all faculties at the undergraduate level, the best learning would take place through implementation in action projects undertaken in the field. Projects should be on issues in the area where the institution is situated and should be a focus, which is interdisciplinary and sustained over a period of time.
20. Social sciences should be integrated in professional courses such as medicine and technology so as to better understand social forces and their implications for their practice. Narrow and particularistic specialisations do not develop a holistic perception of their role in the nature of the society where they practice and its cultural orientation. All students must develop a scientific and rational temper.
21. The Task Force believes that the State Government needs to address the issue of language medium for students sooner than later as there are two competing streams: students from English language medium who face no problems and students from other language mediums who face a major handicap. Without adequate English, students are already very handicapped not only in higher education but also in competing for jobs. This gap will grow very wide as we enter an area of global competition where English has become the language of international communication. Therefore, we cannot remain chauvinistic and deprive our future generation from entry into a market both Indian and global where the opportunities are greatest. India has a lead over Japan and China but both of them are making attempts to catch up. The need to upgrade English language in the professional courses should be given attention also, if the student is to compete successfully in employment.
22. The Task Force suggests that the present system of examinations may be thoroughly revamped. The university may set the examination only for the third year of undergraduate studies and for the second year of post-graduate studies. The first two years of the undergraduate and the first year of the post-graduate programme should be internal to the college/university department. The results obtained should count for $30 \%$ of the final results and, as the system develops experience, it could increase to $40 \%$. The internal marks should be displayed separately but the total of both internal and external should be declared. The Task Force is aware of malpractices in internal assessment, but because of the severe limitations of the present examination system, it is necessary to attempt change keeping in mind the attendant problems and the best means of solving them. The university must take note of colleges, which are systematically too high in their internal evaluation and take necessary action. We believe that, without sweeping reforms in the system of examinations, no change will be possible, either in developing the curriculum or in the use of a variety of teaching methods. The new system may be tried for about five years to see how it works and bring in improvements from year to year. If it works reasonably well, it should be continued.
23. Support activities for students such as counselling services, cultural activities, adventure and sports, alternatives for social service or NCC, must be available. These activities should lead to teamwork, leadership development and personality development of students. Teachers also need opportunities for quiet study, space to see students, and recreation activities. Opportunities should be made available through appropriate infrastructure.
24. Policy makers and educators will be responsible if our citizens of tomorrow are shortchanged by short sighted policies and limited approaches in solving the present impasse. Colleges and Universities have been struggling to make change but they need policy and financial support of the State to achieve the goals.

## GRANTING AUTONOMY TO THE COLLEGES IN KARNATAKA

### 3.1 Why Autonomy

Worldwide, society is increasingly evolving towards a learning society - "a society of knowledge." The extent of change that is resulting from the new information and communication technologies is beyond anybody's comprehension. States are competing amongst themselves to provide that education which is most suited to the student requirements in the present context. Attracting them in greater numbers, not only from within the State, but also, from other States and even from other countries is a worthy endeavor. Quality and Relevance have attained the top priority and the policies of sectors other than education have necessitated education sector to review the existing policy and develop a suitable one for enabling the desiring and deserving to get the choicest education. No doubt it is an opportune time for the education sector to reach to the user expectations.

A new balanced and creative approach to education has become unavoidable at this juncture, when education is being globalised, privatized and information technology advancement has reached the doorsteps of people. Added to these are the present negotiations of WTO. Planners and administrators of education today are posed with a challenge of evolving policy and programmes suitable to the Indian context i.e. to develop and implement policies and programmes that enable institutions and individuals to rise up to face these challenges. Autonomy is one such scheme geared towards achieving these ends.

### 3.2 Definition of Autonomy

Autonomy has been defined differently by different authors depending on the sector to which it is applied and the context in which it is placed. The extent of freedom given to the institution varies depending on the distribution of power between the regulatory bodies such as the UGC, State Government and Universities on the one hand, and the colleges on the other. For example the powers of the regulatory bodies and funding agencies such as UGC, State Government and Universities, determine the extent of freedom given to the Colleges.

Autonomy means 'Self-regulation'. Autonomy implies responsible exercise of freedom in a society in response to concrete social needs. Autonomy is a concrete expression of responsible freedom in a dynamic social context. In other words, autonomy is possible only if accountability is ensured.

Autonomy in the Indian context attains a different meaning than it does in other countries, in the sense autonomy in an affiliation system of colleges means an autonomy given for specified functions of the college in a given governance structure. It would not be wrong to say that it is only a decentralization of selective powers.

The academic autonomy granted by the Universities / State Government to the colleges is limited in the sense that freedom is granted to develop their own courses, redesign the curricula, evaluation system, admission procedure, conduct of examination, announcement of results and so on. The underlying assumption is that it will provide ample opportunity for colleges to take up innovations, bring in creativity, quality and relevance, keeping in view the needs of the society i.e., the community to which the colleges are catering. The credibility of the institution depends on the relevance of its courses and sustainability of its programmes.

Autonomy does not mean colleges are delinked completely from the University. Rather harmonious co-ordination and collaboration between the two are encouraged. Autonomy is expected to be an opportunity to enhance quality of education, and a tool to promote change, participation, reflection and action, based on the needs identified through an analysis of the existing problems in each institution. It is viewed as an Academic freedom given to the colleges.

Though legal sanctions are made necessary, the actual autonomy gets implemented only when the changes are brought in among the members of the colleges at two levels; (i) at the level of thinking and (ii) at the level of behaviour.

### 3.3 Research on Autonomy

Research findings on autonomy to the colleges have revealed in detail the positive outcomes of autonomy in educational institutions in India. Some of the major findings of the study are: Enhancement of the very status of the colleges and teachers; greater professional satisfaction for the teachers; increased number of working days and working hours; teachers coming fully prepared to teach the classes; introduction of innovations, new courses, restructuring/revision of existing courses; examination reforms such as semester system, internal evaluation, improvement in question items; question papers restructuring/revision of existing courses; better admission policy; maximum utilization of existing resources within the institutions such as infrastructure, building, library and laboratory; mobilization of additional resources from other than State and Central Government sources, are only a few examples. These findings confirm the need for granting autonomy to the colleges in the Karnataka State.

In India, all universities have been autonomous since their establishment. However, all colleges are affiliated to these universities and, hence, all the decisions pertaining to syllabus, curriculum, admissions and examinations are decided in the universities. Colleges have always remained as passive institutions to only carry out the decisions taken at these universities. This has made the college teachers to remain detached from the institution and the system.

### 3.4 Committees and Commissions on autonomy

The Committees and Commissions that recommended granting autonomy to the colleges are: the University Education Commission 1948, the Committee on Colleges 1964, the Kothari Commission 1966, the Committee on Standards on University Education 1965, the Gajendragadkar committee on governance of University and Colleges 1965, the UGC statement on higher education of 1978, the Gnanam Committee on new education management 1980, National Education Policy of 1986 and its revised version of 1992, the Programme of Action of 1986 and its revised version of 1992, the revised guidelines on the
scheme of autonomous colleges by the UGC 1987, and the Expert committee of the UGC of 1991.

The need for granting of autonomy to the educational institutions has been realized and recommended by almost all the committees set up by the center, state and other regulatory bodies since independence. As early as in 1948, the University education commission stated that "Education System is built for one time and not for all time. There are no changeless ways of educating human beings. A curriculum, which was vital in the Vedic period or the Renaissance, cannot continue unaltered in the $20^{\text {th }}$ century. Realizing that vision of free men in a free society is the living faith and inspiring guide of democratic institution, we must move towards that goal by adopting wisely and well to changing condition which is possible only with autonomy to the institutions ".

The Kothari Commission (1966) highlighted the need for introduction of autonomous colleges as a step towards introducing innovations in higher education. "there are several colleges of long standing which have done and are doing as good work as that of a good university, it should be an objective of educational policy to encourage them. Where there is an outstanding college or a small cluster of very good colleges, within a large university, which has shown the capacity to improve itself markedly, consideration should be given to granting it an autonomous status. This would involve the power to frame its own rules of admissions, to prescribe its own courses of study, to conduct examinations, and so on. The parent university's role will be one of general supervision and the actual conferment of the degrees. The provision for the recognition of such college should be made in the constitution of universities. It should be possible, by the end of Fourth Five Year Plan, to bring at least fifty of the best colleges under this category."

The concept of autonomous colleges is of special significance in the context of bureaucratic and centralized structure of universities writes U.G.C. as early as in1978.

National Policy of Education 1986 and its revised version of 1992, with the assumption, that autonomy assists in undertaking innovations, designing curricula, evolving
new methods of teaching and learning, framing rules for admission, prescribing courses of study, conducting and announcing the examination results on time, recommended autonomy to the colleges. It says as "In view of the mixed experience with the system of affiliation, colleges will be helped to become autonomous in large numbers until the affiliation system is replaced by a free and more creative association of universities with colleges. Similarly, the creation of autonomous departments within the universities on selective basis will be encouraged. Autonomy and freedom will be accompanied by accountability".

The Programme of Action 1986 has further provided the plan of action. "The system of affiliated colleges does not provide autonomy to deserving colleges to enable them to frame their own curricula, design courses of study and improve upon the system of examination. It is envisaged that about 500 colleges would be made autonomous in the seventh plan, and the existing affiliating system might be replaced in the long run. Due care will be taken to evolve a suitable framework for autonomous colleges."

The concept of autonomous college does not imply permanent categorization of an institution under a separate label for higher formal status. It requires an institution to be continuously subjected to justify its recognition as an autonomous college, and to periodic reviews. It should be liable to lose its recognition, if the conditions of higher academic excellence as well as its contribution to society are not maintained at the expected level.

### 3.5 Objectives of Autonomy

The major objective of granting Autonomy to the colleges is to provide an opportunity to the college to develop and grow in the right direction by relieving it from the unwanted controls of the State Government, University and Management over teaching and learning.

The other objectives are to enable the college:

- To determine their own courses of study and syllabus
- To prescribe rules of admission, subject to the reservation policy of the State


## Government;

- To evolve methods of evaluation and to conduct examinations,
- To achieve higher standards and greater creativity,
- To promote national integration; and
- To ensure accountability of the institutions and their members,


### 3.6 To Implement Autonomy:

(a) Universities are expected to make necessary preparations with regard to the following:

- To make provisions in the University Acts wherever necessary to enable the colleges to become autonomous. (Implemented in Karnataka)
- To frame guidelines and pattern of assistance including the extent of academic, administrative and financial freedom and the corresponding responsibilities emerging from autonomous status, their management structures including the provisions for safeguarding the interest of teachers.
(b) The State is expected to make necessary preparations with regard to the following:
- To formulate a scheme of incentives such as special assistance to selected colleges, creation of post of Readers and Professors, provisions of higher level of grant for development to colleges that becomes autonomous.
- To provide special assistance to the colleges in tribal and backward areas to enable them to develop into autonomous colleges.
- To make statutory provisions, if necessary, to enable autonomous colleges to develop proper mechanism to accelerate the process of curricular reforms, designing of courses, reforms in teaching and evaluation procedures and to award their own degrees.
- To institute proper structure for review/appraisal at regular intervals and to fecilitate interaction among colleges.
- All such reviews and appraisals be done by the university through the committee constituted for the said purpose. Such committee should have representatives of the UGC and State Government.
- Simultaneously it is also necessary to initiate a detailed study to develop alternative methods for establishing university and college relationships that could replace the existing affiliating system in the long run.

Unlike the present rigid, centralized structure of Indian universities, a flexible decentralized participatory structure is proposed in the autonomy guidelines highlighting the role of teachers in academic decision making, at university and college levels. Also teachers' representation is to be ensured by revising the number and nature of membership in the syndicate, senate, governing and such other bodies constituted for the governance of the colleges. Under the autonomous college scheme, vital functions, hitherto performed by the parent universities are transferred to the colleges. By this it is expected to convert teachers from passive participants to active decision makers and implementers.

The UGC guideline suggests constitution of statutory and non-statutory committees at the college level for successful implementation of autonomy in these colleges. The statutory committees suggested under the scheme are: Governing Body/Board of Management, Academic Council and Board of Studies. The non-statutory committees suggested for autonomous colleges are: Finance, Planning and Evaluation, Redressal of Grievances and Appeals, Examination, Admission and Library committees. In addition to these committees, the colleges on their own initiative have also constituted other committees like the Student Welfare Committee, Extra curricular Committee etc.

During the late seventies, sixteen colleges were granted autonomy in Tamil Nadu. These were reputed private colleges and were mostly managed by the religious missionaries. As of 2002-2003 the number is 131 autonomous colleges, located in Andhra Pradesh, Gujarat, Himachal Pradesh, Tamil Nadu, Madhya Pradesh, Maharashtra, Orissa and Uttar

Pradesh. There are no autonomous colleges in Karnataka State.

The autonomy granted in the present form requires role clarifications of different organizations such as UGC, AICTE, State Government, University and College Management to remove confusion that exists in these organizations with regard to powers and control vested in them. Success of the autonomy scheme depends mainly on the following two items:
(1) Clarity with regard to the working partnership of different agencies controlling and contributing directly or indirectly to the colleges viz State Government, UGC, Universities and Management.
(2) Ensuring accountability of autonomous colleges, their academic and non-academic staff, Principals and Management keeping in view the UGC guidelines and the State level policies and programmes with regard to higher education system.

As on date all the autonomous colleges in the country have constituted their own statutory and non-statutory committees for the governance of the college; these colleges have been able to effect several changes benefiting the institution, teachers and students, which in turn, has benefited the system in terms of quality and relevance of education. It would be encouraging to learn that one of the early autonomous colleges has already become a deemed university. All these have been granted only academic autonomy.

### 3.7 Plan of Action

1. Misgivings about the word "autonomous" based on ignorance, prejudice, bias, lack of understanding, and even the lack of sincerity to understand, has been responsible for creating fear amongst the teachers that, autonomy may grant unlimited powers to the principal and licence to the managements. It is necessary for the State to organize awareness programmes, conferences, and seminars at the State and University level to remove such apprehensions and prejudices.

There is unfounded fear amongst the employees of the college that autonomous college may not ensure job security to its employees. To remove this fear from their minds they should
be informed about the stipulation contained in the revised UGC guideline item(a) on page 15. It reads "The employees both teaching and non-teaching of a college, on conferment of autonomous status will continue to be governed by the same terms and conditions of services as on the date, and the terms and conditions of service will become available to the employees mutatis mutandis, when the respective university to which the college is affiliated decides to review the service conditions of the employees." Further provision IV (a) (b) of the UGC guidelines annexure 2 at page 24 titled as functions of the governing body may be followed.
2. Karnataka State Universities Act 2000 has already made necessary provision for granting autonomy to the colleges. Similarly, all universities have made necessary provisions in their Acts to grant autonomy to affiliated colleges. It is suggested that the period of autonomy be matched with that of the period mentioned in the UGC guidelines to avoid any confusion at a later stage.
3. Clarity with regard to distribution of power at the State, University and College levels be worked out keeping in view the agenda and expectations from these institutions and for enabling them to achieve the stated goals, and to avoid any confusion with regard to the roles and responsibilities.
4. Existing policy on certain crucial matters such as selection, recruitment and placement of staff of autonomous colleges and matters concerning sanction of new posts, filling of existing vacant positions etc; and procedure for transfer of teaching and non-teaching staff of the Government Colleges need to be modified to avoid any adverse effect on the academic programs of autonomous colleges.
5. The State Government is expected to protect the Grant-in-Aid given to these colleges even after granting autonomy. In addition to this, state is expected to support these colleges with additional grants.
6. Ensure active participation and support from the regulatory bodies such as UGC, AICTE, NCTE, State Government, University and Management for facilitating im-
plementation of autonomy by timely nomination of members for the decision making bodies of the colleges and their active participation in the same.
7. An issue of parity, quality and accountability needs to be worked out in advance to facilitate both horizontal and vertical mobility of students from the autonomous colleges.
8. Autonomous colleges are expected to update, innovate, adapt, adopt and initiate action at the college level keeping in view the objectives of the college on the one hand, and the objectives of autonomy on the other.
9. The success of autonomy depends on the quality of leadership and faculty of the college. Hence, policy and procedure adopted for selection of Principal and teachers to the autonomous colleges needs review to reap better results.
10. The Government colleges have never addressed mobilisation of resources seriously. Autonomy impels this activity and hence needs proper encouragement from the State Government.
11. Greater compatibility between policies, norms and standards laid down by the regulatory bodies on the one hand, and those of the autonomous colleges on the other, needs to be worked out by the State, UGC, University and College.

### 3.8 Recommendations

To sum up, autonomy gets implemented only when planners, administrators, implementers, teachers and students, keep educational institutions only for educational purposes, and in doing so, cooperate and collaborate with one another in promoting implementation of autonomy.

To implement autonomy, the State Government should give the responsibility to the university by issuing a Government Order for granting autonomy to the colleges. This could be implemented through an expert committee constituted by the university in which the nominees of the State Government and UGC are also represented. Further, details may be worked out by this expert committee in consultation with the UGC, State Government, University and Colleges. Also the committee may develop a plan of action for proper
implementation of autonomy in the Karnataka State.
Initially, at the State level, all colleges that have received Grade B and above from National Assessment and Accreditation Council's accreditation may be considered for granting autonomous status. However, others coming forward to take on autonomy and, at the same time, meeting the criteria developed by the expert committee constituted by the university may also be considered.

To encourage the Government colleges to come forward for taking autonomy, selection and transfer policy of principals and teachers should be suitably modified. Publicity with regard to the benefits of accepting autonomy by the colleges may be made widely.

A separate unit should be set up in the Directorate of Collegiate Education to promote and facilitate the work of autonomous colleges in the State.

Once implemented, there is no doubt that many more colleges would opt for taking autonomy. It is the beginning that is to be made without any further delay. One of the precautions to be taken while granting autonomy to the colleges is that colleges that are selected for granting autonomy should include all categories of colleges such as constituent, affiliated, rural, urban; male, female, coeducational, Government, Private, and Private aided.

Instead of waiting for the colleges to come forward, it is time for the University and State government to initiate and implement. Once the colleges are identified, it is these colleges, which must be supported further to enable them to become model institutions for others.

The expert committee consisting of UGC, University, State Government and the subject experts shall submit their recommendation to the State Council of Higher Education if it is there by that time. If not, it may be submitted to the state government for granting autonomy to the colleges to be given within three months. If the colleges do not hear anything within these three months, it is assumed that the colleges are deemed to be autonomous. Also if the representative of the state government does not attend the meetings of the autonomous college, the decisions taken in that meeting should remain as final.

## CHAPTER - IV

## TechnicalEducation in Karnataka

### 4.1.0. Introduction:

Karnataka's contribution to Technical Education field is well known. Karnataka has supplied leaders in the engineering field to the country for its main projects, before and after independence. The role of engineers from Karnataka in making Bangalore as the Silicon Valley of India, in the wake of the IT revolution is acclaimed all over. Prior to independence Karnataka had only four engineering colleges and it has grown to 113 colleges in the last 50 years. Karnataka has also been the pioneer in Polytechnic Education.

Studies on Technical Education were commissioned by Government of Karnataka on several occasions. Some recent reports are listed in Annex- IV.1. This report reflects the summation of these studies. An attempt has been made to provide a brief review of the technical education system, the capacity and its utilization, gender, social and other equity issues, the issues related to quality and relevance, absorption of technical manpower, issues related to financial management of institution and institutional system. Apart from discussing the present scenario, the concerns arising out of them and road map ahead are suggested.

### 4.2.0. Technical Education System:

An overview of the Technical Education system in India, with both the formal and non-formal programs is given in Annex-iv. 2 as also the structure of Technical Education in Karnataka. Diploma courses offered in Polytechnics are normally of $\mathbf{3}$ years duration and eligibility for admission is a pass in $10^{\text {th }}$ standard. Eligibility for admission to four year Bachelor's degree course in Engineering is

# a pass in $12^{\text {th }}$ Standard. There is a provision for lateral entry to second year degree for diploma holders in engineering. Master's degree programs in Engineering are of 2 years duration. 

### 4.3.0. Capacity Utilization:

### 4.3.1 Intake:

On an all India basis, Karnataka accounts for about $11 \%$ of the number of Post-graduate Institutes. Karnataka's share of engineering colleges is $9.1 \%$ (113 colleges out of 1263 ) with a share of $13.3 \%$ intake ( 40,000 out of 300,000 for undergraduate students in Eng.). In case of polytechnics it is $16.3 \%$ (199 out of 1224 polytechnics) with an intake of $15.9 \%$ ( 35,000 out of $2,23,800$ ).

An analysis indicates that migration to Karnataka from other states was about $16 \%$ for post-graduate courses, $25 \%$ for degree courses and $6 \%$ for diploma courses (year 1997), whereas migration of students from Karnataka to other states was less than $2 \%$ for post-graduates, less than $1 \%$ for degree and less than $1 \%$ for diploma courses.

The growth in number of engineering Colleges and Polytechnics and their intake is shown in Annex - iv.3.

It is observed that there has been sizable increase in the number of Engineering Colleges and total intake at degree level during years 1997-98 and 2001-2002. The average annual growth in total intake is $10.2 \%$ during 1996-2003 in case of degree and $5 \%$ in case of diploma. Private unaided institutions account for $80 \%$ and $72 \%$ of the total intake capacity in Engineering colleges and polytechnics.

Looking at the discipline-wise intake for Engineering Degree courses shown in Annex- iv. 3 (Table 2) it is observed that the traditional disciplines of Civil, Electrical and Mechanical Engineering no longer constitute a major share of intake. Electronics and Communication Engineering and Computer Science constitute a major share of about $\mathbf{4 0 \%}$. During the past two years, discipline of Information Science and Engineering has contributed to $\mathbf{1 3 \%}$ of intake. Almost all new colleges, which started after 1999, do not have intake in traditional branches.

Regarding Post Graduate courses in technical education, there are 28 institutions offering these courses in the state. (As per All India Council for Technical Education (AICTE) website). The intake for M.E/M.Tech course was 2406 in Karnataka for the year 2002-2003.
4.3.2. Capacity Utilization: The following figures are available for capacity utilization.

Diploma: Admission is only $59 \%$ of intake capacity which means nearly $40 \%$ seats are vacant.

Degree: During 2002-2003 admission was $82.7 \%$ of intake in all the engineering colleges of Karnataka: 32,390 admissions out of $\mathbf{3 9 , 1 5 0}$ seats ${ }^{1 *}$ (as per annual report of VTU for 2002-2003, and CET cell). More than 6700 seats ( $17 \%$ of intake) had no takers.

Post Graduate Courses: In colleges affiliated to VTU, during the year 20022003.

[^0]MCA : 697 admissions out of 1325 seats (53\%)

MBA : 758 admissions out of 840 seats ( $90 \%$ )

It is observed that there is a large unutilized capacity in polytechnics, which raises a concern regarding optimal use of available infrastructure. At the degree level there was a vacancy of $17 \%$ in Karnataka, the vacancies being in traditional disciplines such as Civil, Mechanical, Industrial Production in Urban Colleges and in almost all disciplines in new colleges located in rural areas. This vacancy of $17 \%$ is found to be much lower when compared to the vacant seats in Tamil Nadu (30\%). Vacant seats in MCA courses are due to fall in demand for MCA's in the job market.

It is seen that in case of degree courses, at present there is a marginal excess in capacity over demand. But this is expected to be a short term phenomenon based on the experience of Karnataka during the years 1967 - 69, when the demand for Engineering education fell down for a short period but picked up in 2 years.

There is a transition taking place in the demand for Technical manpower, with a growth in economy of the country with GDP of $\mathbf{7 \%}$ to $\mathbf{8 \%}$. Huge investments on development of roads (Golden Quadrilateral Project), water supply, energy, irrigation, construction sector, manufacturing and I.T. services sectors due to Business Process Outsourcing from developed countries, are likely to create an internal manpower demand.

The effect of the WTO agreement (on anvil) and the listing of education as services can trigger export of educational services, which involves services such as coming of foreign universities to India, setting up of centres of Indian Universit-

## ies abroad and export of Indian expertise, increasing an external demand for Technical manpower.

With these projections of the expected manpower requirements the already created capacity will be utilized in the coming years. These may indeed be a need for further growth in capacity.

However, the export of services in terms of bringing in students to this country under WTO arrangement or setting up of institutions abroad or sending faculty to other countries is essential and depends upon the quality and relevance of our technical education. Though it is felt that much is needed in terms of quality and relevance (discussed elsewhere), it is also necessary that our educational qualification should have a proper branding like the qualifications of UK and USA, which are preferred destinations for aspiring students in developing countries. The facilities of education system in India have not been fully exploited due to the lack of image of the quality and relevance of education in the international scenario. The following suggestions are given:
a) The projection of human resource requirement in view of various investments may be worked out and during the CET an announcement may be made as to the projected manpower requirement in the country. This will facilitate students and parents to choose right disciplines and the unequal distribution of demand will reduce.
b) The Policy support from the Government must be forthcoming in order to promote export of services and hence better utilization of the technical manpower.
c) The Polytechnic education has an identity crisis at the moment as reflected by having $40 \%$ vacancies. There is an urgent requirement of redefining the goals of polytechnic education. There is pressing need to modernize the polytechnics and redesign their courses to meet the changing needs of the employment market.

### 4.4.0. Equity

The issues related to equity can be addressed from the point of view of gender, social, geographical and also rural and urban distribution. The percentage enrolment of girls in diploma and degree courses is shown in Annex- iv. 4 (Table1). It is observed that in degree courses in engineering, enrolment of girls is $\mathbf{3 0 \%}$. (This may be on account of more employment opportunities in the areas of Electronics and Information Technology). Even in Diploma courses, over 20\% of the students are girls during 1999-2000. It is to be noted that while there are 6 polytechnics exclusively for women functioning in Karnataka and one Engineering College for Women was started in the Private Sector during 2003. Thus the policy of reaching women enrolment of $30 \%$ appears to have been achieved.

Statistics related to enrolment of SC/ST students in degree and diploma courses is given in Annexiv. 4 (Table 2). The statutory reservation of $18 \%$ and $4 \%$ of intake is provided for SC/ST students. Opportunities have been given by Government for establishing social equity by reserving adequate number of seats. The social equity has policy support and safeguards and there has been some progress in accessing professional education by the persons with social inequity. It however, needs continuous support to improve it further.

What is of concern is in case of equity in terms of geographical distribution in the State regarding the professional education institutions and the rural-urban equity both in terms of enrollment and access. It is seen that more than $50 \%$ of the Engineering Colleges are in and around Bangalore, (though there has been a reasonable spread of polytechnics in rural areas). Nearly 80 colleges are located in major urban centers, for obvious reasons of student preference for urban centers. Regional imbalances and urban-rural divide appear to be a common feature not only in Karnataka, but also throughout the country. The enrollment of students from the rural areas also needs to be improved. Government policies and continued support is necessary. Appropriate intervention from the Government to achieve geographical equity and the rural urban equity is obviously necessary.

### 4.5.0. QUALITY, RELEVANCE \& ABSORPTION:

### 4.5.1 Quality:

The quality of an institution depends on the quality of students at intake, the quality of faculty (in terms of qualification, experience, updation of their knowledge base), infrastructure (library, equipment, etc.) and relevance of academic programmes.

There is a wide variation in the merit of students admitted to colleges and polytechnics at the point of entry. For example for candidates admitted under general merit category during year 2000, the CET cutoff rank for Civil Engineering was 27359, whereas that for Electronics was 1109. For candidates under SC/ST Category, all eligible candidates got entry. In Polytechnics also, during 2000, variation of marks scored in science and mathematics was very large ( $\mathbf{6 2 \%}$ to 95\%) for students admitted to branches such as Computer Science and Electronics. This wide variation in quality at input level certainly has a bearing on the quality at output.

Annex- iv. 5 (Table1) gives faculty position in Engineering colleges and Polytechnics. (AICTE norms specify student to faculty ratio of 15:1). According to information available, the current staff position in Government institutions is not satisfactory with vacancies ranging from $\mathbf{3 3 \%}$ to $\mathbf{1 0 0 \%}$. There is a shortage of faculty for IT courses. Most of the new institutions have very few faculties at senior level (Professor/Asst. Professor).

It is observed from VTU report for 2002-2003, out of $\mathbf{6 0 4 2}$ teaching faculty in its affiliated colleges, 568 (9.4\%) have Doctoral qualifications and 3865 (64\%) have M.Tech qualifications. This means nearly $\mathbf{2 7 \%}$ of the faculty have only a bachelor's degree. This calls for an intensive faculty development programme for improving the qualifications of faculty. There is also a need for updating the know-
ledge of faculty through short-term programmes, in order to keep abreast with developments in technology. There are many faculty development programmes sponsored by AICTE and Central and State Government which are in place. For Engineering college teachers, there are many schemes such as Q.I.P. (for higher studies - M.Tech and Ph.D), Induction Training for new teachers Short term/summer/winter schools, Faculty Induction programmes and Industry Institute Interaction programmes. For polytechnic teachers also there is QIP (for higher qualification) and programmes offered by TTTI's curriculum design programmes.

### 4.5.1.1. Quality Mechanisms:

There are three mechanisms which are used as indicators of quality of an institution (a) Affiliation to a university (b) Accreditation given by the National Board of Accreditation and (c) Opinion of stake holders viz., employers, students, parents. It is seen that NBA, which was originally designed to be an independent system, has become a sub set of AICTE. Accreditation exercise has been mere peer evaluation with only a very nominal representation from the stakeholders of industry and other employers. The system which was originally designed to be like the QAA of UK and ABET of USA, has not turned out to be so. Accreditation was supposed to be a voluntary exercise by institutions to get accredited. AICTE and Government policies are trying to make it compulsory in recent years by administrative orders instead of bringing social pressure on institutions. This needs to be looked into.

The norms and standards set up by AICTE need periodical revisit and are being applied more as a routine. Norms and standards have certain ambiguity like the land requirement in urban and rural colleges, deciding on the number of computers purely on arithmetic ratio of students to computers, instead of looking at the quality of an institution in terms of activities such as continuing education, research and development, consultancy, enterpreneurship promotion and linkages with alumni and international institutions etc. Unfortunately the norms and standards applied without consideration of the spirit of quality have adverse bearing on the cost of education.

With the demand for export of educational services coming up in the near future, there is a need for excellence in the quality of output, in order to face the global competition successfully. This calls for academic freedom, which is possible through autonomous colleges/deemed universities. This needs a policy support from the Government.

### 4.5.2. Relevance:

It has been the complaint from users that the output of institutions is not up to the desired level. The fast pace of development of technology widens the gap further. Even when an institution plans for training the human resources to meet the present needs, the time lag of 4 years makes even the fresh graduate not totally relevant. This needs a mechanism, which responds to the change in requirement of the users due to change in technology, management and new course materials. This can be done by redesigning the response time for changes in curriculum to be implemented in about 6 months, instead of 3 to 4 years as at present. It is proposed that a joint curriculum development committee fully empowered may be created with active participation from the users, namely manufacturing and service agencies.

There is also a case for integrating the concept of Finishing school in the education system to bridge the gap. This is particularly felt in the case of polytechnic education.
4.5.3. Absorption:

According to Employment department of Karnataka (November 2000), 301 postgraduates, $\mathbf{1 3 4 9 6}$ graduate engineers and 42346 diploma holders, were registered
in employment exchanges. Amongst graduates 25\% were Civil Engineers 28\% Mechanical, 11\% Electrical, 16\% Electronics, 8\% Industrial production and 8\% Computer Engineers. As per NTMIS* Annual Technical Manpower review, Karnataka (1997-2001), 83\% postgraduates, $\mathbf{8 0 \%}$ graduates and 79\% diploma holders of the 1997 batch got first paid jobs within one year after completing studies. Another 13\% post graduates and 17\% diploma holders of 1997 batch got first paid jobs between 12 and 21 months after completing studies. Only $\mathbf{4 \%}$ of postgraduates, $3 \%$ of graduates and $4 \%$ of diploma holders in the batch had to wait for more than 21 months.

This situation is dynamic and depends on the opportunities created in the market due to investments in infrastructure projects.

### 4.6. FINANCE:

4.6.1: Polytechnics: Based on AICTE norms, the unit recurring cost for a diploma student per year works out to about Rs.30,000, which includes expenditure on salaries, contingencies and services. The fee structure fixed by Government for Polytechnics is given in Annex- iv. 6 (Table1)

It is observed that the total fee income cannot cover the entire expenditure.

### 4.6.2: Engineering Colleges:

- National Technical Manpower Information System

As per Supreme Court judgment on minority and self-financing educational institutions (dated 31-10-2002 and 14-8-2003), admissions to institutions must be based on interse merit and approved by a committee headed by a High Court judge, constituted by the Govt. for the purpose. Each institution may fix a uniform fee based on actual cost recovery, and marginal share for development. Institutions cannot indulge in profiteering and the fee structure must be approved by a committee headed by a High Court judge, constituted by the Govt. for the purpose. The Institutions will have to abide by the norms fixed by AICTE. A few important norms are given in Annex- iv.7.
4.6.2.1: Cost of Education: The cost of education is guided by norms and standards and the quality and relevance of education. The costing can be arrived at by looking into the running cost, development cost, depreciation and the amortization of capital (in case of new institutions). The cost of education is arrived at from the above principles. It is a point for discussion whether entire cost is passed on to student as payment of fees. There are $\mathbf{3}$ groups of students

1) Those who can pay the cost of education
2) Those who need and get protection of subsidy from the Government.
3) But there is a large percentage of people who are not in the above 2 categories who may be deprived professional education if the cost of education is to be entirely met by student-parent system.
4.6.2.2: Study on cost of Education: Excerpts from a study made for the World Bank during 2003 are given in annexure to give an idea of the cost of education in engineering colleges. Annex- iv. 6 (Table2) gives the unit capital cost per student in Rupees, based on the AICTE norms. While most of these are one time costs, the cost of equipment requires periodic additions for replacements for

## modernization and removal of obsolescence to keep abreast with change in technology.

Based on AICTE norms, the unit recurring cost per student per year has been worked out, which is shown in Annex- iv. 6 (Table3). The cost per student per year varies between Rs.48,370/= and Rs. $54,225 /=$ depending on the intake/total strength. These costs cover expenses towards salaries, consumables, contingencies, services, staff development activities, depreciation on buildings and equipment, student welfare including health, sports and transportation. Typically the composition of unit recurring cost is - Faculty salaries $34-41 \%$, support staff salaries $15-17 \%$, staff development 3$4 \%$, depreciation $23-30 \%$, other recurring expenses $16-18 \%$. Besides these, there is a need for servicing loans borrowed for infrastructure development.

It is observed that the estimated unit recurring cost works out to Rs.55,000 per student per year.
4.6.3 Fee Revenue - Revenue Gap: The main revenue of an engineering college (barring Government and grant-in-aid institutions) is from student fee. The fee structure for engineering colleges, fixed by Government of Karnataka for the year 2003-2004 was as follows:

Tuition fee for free seat Rs. 6, 000/-

Tuition fee for payment seat Rs.36,000/-

Other miscellaneous fee including university Registration fee is Rs.6,000/-

With equal share for free and payment seats, the average fee income of a self-financed college was Rs.27,000 per student per year. With a unit recurring cost of Rs.55,000 per year, the fee income creates a sizeable revenue gap.

There is a total change in situation, after the recent Supreme Court judgement, which allows colleges to charge a uniform fee for all students to meet the costs, without indulging in profiteering. There is no scope for differential fee structure. This brings into focus the question of affordability or paying capacity of students. In a sample study made for the World Bank, it is reported that over $80 \%$ of Indian households cannot afford engineering education even in the free seat category. The low, lower middle and middle income groups of the society do not have the paying capacity. Enabling mechanism is to be devised to make these strata of society to pay the fees. This will have to be done by the managements of institutions, Government or through loans.
4.6.4. Bridging the Revenue Gap: Even with the changed scenario after the Supreme Court judgement, the entire cost of education cannot be met from student fee alone. The revenue gap will have to be made good in order to make the institutions financially sustainable and to develop. The extensive infrastructure and expertise available in the institution (spare capacity) can be used to generate some revenue. Some of the means to generate additional revenue for institutions are given below:
(a) Continuing/life long education: There is a need for training professionals in latest developments in technology in order to update their knowledge and skills. Engineering colleges have excellent potential for organising such programmes. A study has revealed that there is a potential to generate revenue of about $5 \%$ of total recurring expenditure by conducting continuing education programmes. The study cites of an aided engineering college earning Rs. 35 lakhs per year through continuing education, which is about $3 \%$ of its revenue. Potential exists for organising training programmes for personnel from industries and Government Departments. Some of the interventions needed are - institutionalization of continuing education programmes, continuous assessment of need for such programmes and developing them, encouraging expertise in the institution and outsourcing expertise based on need, managing and marketing the programmes.
(b) Consultancy: Engineering colleges have a very good potential for rendering industrial consultancy services in areas such as design engineering, testing and calibration, quality control, environmental impact analysis, IT-enabled services such as MIS and CAD/CAM. The institution will have expertise in most of these areas. By enhancing the interaction with the world of work,
it is possible to generate substantial revenues from these means. The World Bank study reports several engineering colleges rendering testing and calibration services and earning revenues. This study reports that there is potential to generate revenue of about $10 \%$ of the expenditure by rendering consultancy services. A strong policy support is necessary to promote this activity.
(c) Sponsored Research: Sponsored research projects do not contribute to revenue generation in an institution directly. But indirectly they help in creating new facilities, which in addition to saving on capital investment may encourage undertaking more consultancy and continuing education, thereby augmenting revenue from these sources.
(d) Others : Some of the other means of generating additional revenue are alumni funding, donations from philanthropic organisations and grants. The recent efforts of alumni of IIT's raising funds for the development of their institutions are examples.
4.6.5 Financing the Institutions: Start-up institutions need resources to meet the capital costs of land, buildings and equipment. With decreasing lending rates of interest, borrowing from commercial banks has become one of the means for financing startup institutions, and also enabling the students through loans. Hence it is imperative that society creates a mechanism for providing funds for promotion of professional education and to provide access to education by enabling the students to pay. This can be in the form of an Educational Development Bank. A method perhaps, is to set up an Educational Development Bank, which can finance educational institutions and students at lower than commercial rates.

### 4.7.0. Recommendations:

Some major aspects of technical education in Karnataka have been discussed in the earlier paragraphs. The system of professional education has been undergoing conceptual change all over the world and in India too. Based on the current scenario and emerging trends in the developmental plans of our country in the wake of liberalization and globalization, the development of technical education may be on the following lines.
(a) Capacity Planning: To cater to the growing internal demand and international / global demand for technical personnel, a scientific survey is to be conducted for establishing the need for such personnel and services over the next 5 years and 10 years and the results be made available to all educational institutions, and stake holders. This process helps in planning of courses and managing the capacity to enable the system to respond to the needs and relevance.
(b) Polytechnic Education: The relevance of polytechnic education is being questioned and there is an identity crisis. Measures to reestablish the relevance and value of polytechnic education in its own right are necessary.
(c) Quality: The relevance of professional education and its quality are becoming very important. Educational institutions should become centers of competence and excellence. This calls for institutions to compete internationally in delivering quality products and services. Even assuming the quality and relevance are of comparable standards there is a issue of branding the professional education in the international arena. The degrees of universities of UK, USA Germany and France and even Australia are sought after by students from the developing countries. There is a need to concentiously develop mechanisms of branding the degrees of Indian universities with an image equal to that of developed countries.
(d) Export of Educational services: Export of educational services is an important issue. There is a need for policy support from the Government to promote this to stand competition in the international scenario. Government of India, with the assistance of World Bank has already initiated TEQIP project (see Annex- iv.8). Such measures help in the export of educational services.
(e) Academic Freedom: Referring to the relevance of the programme it is necessary that the policy of UGC in promoting autonomous colleges and deemed universities be implemented in Karnataka without any further delay. The policy support needed by the State Government in providing autonomy for the good institutions and to provide powers to set up Deemed Universities will be a step in the right direction to encourage quality and relevance of technical education.
(f) New trends: Another development in education is in the area of e-learning. e-learning is not simply learning through computer or multimedia interventions. The broad ambit of elearning involves content development, content delivery, content management, learning management, assessment management systems and e-governance of the entire institutional system. It is noted from the Dubai Knowledge Village document that in the next few years, $70 \%$ of the learning is through e-learning, and the balance of learning is through direct interaction. This emerging global trend cannot be ignored. It is heartening to note that Karnataka's V.T.U (Visweswvaraya Technological University) has embarked upon the EDUSAT project, through which it has set up connectivity to all the 113 affiliated colleges. The experiment in sharing lessons beamed from central facility and interaction with the experts through video conferencing has succeeded. There is good scope for development in this regard and Governments should provide complete support.

## Annex iv. 1 <br> EARLIER REPORTS

- 1987 - Intake Committee Report, Government of Karnataka.
- 1997 - Vishveshwaraiah Technological University Report, Government of Karnataka.
- 1998 - Prof. Savadatti Committee Report, Government of Karnataka.
- 2001 - Sector Study on Technical Education, Government of Karnataka
- 2002 - Unit Cost and sources of financing for Engg. Colleges and Capacity Utilization - World Bank.
- 2003 - National Seminar on Internationalization of Higher Education, Government of Karnataka


## Annex iv-2

Education at Degree and


Learning Programmes offered by Institutions Institutions / Universities.

University

## Non-University

Diploma Education \& Training In Polytechnics / Institutions


Continuing Education Programmes offered by Polytechnics/Technical Teachers Training Institutes

Vocational Education in
Higher Secondary Schools

Vocational Training imparted at
Industrial Training Institutes and Industry

Continuing Training Programmes offered by the Vocational Education System

Continuing Training Programmes
offered by DGE\&T Institutes and Industrial Training Institutes



GATE - Graduate Aptitude Test in Engineering For admission to Post - Graduate courses
CET - Common Entrance Test for Admission to Professional College in Karnataka

Figure 2 Structure of Technical Education System in Karnataka


Fig. 1 Growth in number of Engineering Colleges and Polytechnics in

Table 1 Growth in intake in Engineering Colleges in Karnataka:

| Type of Institution | Year - Engineering Colleges |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 1996- \\ 97 \\ \hline \end{gathered}$ | $\begin{gathered} 1997- \\ 98 \\ \hline \end{gathered}$ | 1998- <br> 99 | $\begin{aligned} & 1999- \\ & 2000 \end{aligned}$ | 2000- | $\begin{gathered} 2002- \\ 03 \\ \hline \end{gathered}$ | $\begin{gathered} 2003- \\ 04 \\ \hline \end{gathered}$ |
| Government | 1368 | 1344 | 1382 | 1406 | 1522 | 1522 | 1522 |
| Aided | 5305 | 4998 | 5077 | 5022 | 5857 | 6148 | 6268 |
| .Private | 12772 | 17459 | 17925 | 19864 | 22400 | 31770 | 33210 |
| Total | 19445 | 23801 | 24384 | 26292 | 29779 | 39440 | 41000 |
| Polytechnics |  |  |  |  |  |  |  |
| Government | 6711 | 7770 | 7534 | 8294 | 7840 | -- | 8813 |
| Aided | 2120 | 1848 | 1838 | 1884 | 1967 | -- | 9536 |
| Private | 19884 | 22262 | 23196 | 24451 | 25651 | -- | 18082 |
| Total | 28715 | 31880 | 32568 | 34629 | 35458 | -- | 36431 |

Table 2 Percentage Discipline wise distribution of Intake :

| Year/Discipline | Civil |  |  | E 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |  |  | $\begin{aligned} & \ddot{0} \\ & .0 \\ & \tilde{U} \\ & 0 \\ & .0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & E \end{aligned}$ | Others |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1999-2000+ | 09 | 20 | 09 | 20 | 04 | 18 | - | 20 |
| 2000-2003* | 4.4 | 15.2 | 6.5 | 21 | 3.2 | 20.7 | 13.7 | 15.3 |

+ Statistics from Annual Report, Directorate of Technical Education, Government of Karnataka, Bangalore
* Annual Report of Visveshwaraiah Technological University, Belgaum 2002-2003.

Table 1 Percentage Enrollment of girls in Engineering Courses.

| Year | Degree | Diploma | Sources |
| :---: | :---: | :---: | :---: |
| 1996-1997 | 16 | 16 | Report of Annual Admission, DTE, GOK. |
| 1997-1998 | 16 | 19 |  |
| 1998-1999 | 21 | 21 |  |
| 1999-2000 | 21 | 20 |  |
| 2002-2003 | 30.03 | - | VTU Report 2002-2003 |

Table 2 Percentage enrolment of SC/ST students in degree and diploma courses in Engineering

| Year | Degree |  | Diploma |  | Source of Information |
| :---: | :---: | :---: | :---: | :---: | :--- |
|  | SC | ST | SC | ST | Annual Reports of <br> Directorate of Technical <br> Education, GOK. |
| $1996-1997$ | 04 | 01 | 08 | 02 |  |
| $1997-1998$ | 05 | 01 | 08 | 02 |  |
| $1998-1999$ | 06 | 01 | 08 | 02 |  |
| $1999-2000$ | 06 | 01 | 08 | 02 |  |
| $2002-2003$ | 6.8 | 1.7 | -- | -- | Annual report of VTU-2002- <br> 2003 |

Annex iv. 5

Table 1 Faculty strength in Engineering College \& Polytechnics:

| Course | Faculty Strength 1998-99 |  |  | Faculty Composition 1999-2000 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | \% <br> AS/SS | S:T <br> Ratio | Total | Women | SC | ST |
| Degree | 6290 | 92 | $19: 1$ | 5528 | 913 <br> $(17 \%)$ | 129 <br> $(2 \%)$ | $19(0.3 \%)$ |
| Diplom <br> $\mathbf{a}$ | 5384 | 91 | $16: 1$ | 4238 | 874 <br> $(21 \%)$ | 248 <br> $(6 \%)$ | 65 <br> $(1.5 \%)$ |

AS/SS = Actual Strength to Sanctioned Strength
S:T Ratio = Student : Teacher Ratio.

Table 1 (Fee structure for polytechnics Rs. Per year (2000-2001)

| Government |  | Aided |  | Private |  |
| :---: | :---: | :---: | :--- | :--- | :--- |
| GM | SC/S <br> T | GM | SC/ST | Karnataka | Non- <br> Karnataka/ <br> Management |
| 1,600 | 400 | 3,000 | 800 | 6,500 | 10,500 |

Note: An additional fee of Rs. 500 is allowable.

Table 2 Unit Capital cost in Rupees for Engineering Colleges:

| No. of disciplines | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ |
| :--- | ---: | ---: | ---: | ---: |
| Intake/Total Students | $180 / 720$ | $240 / 960$ | $300 / 1280$ | $360 / 1440$ |
| Unit cost/land (minimum) | 9,261 | 8,559 | 8,296 | 8,020 |
| Unit Cost/Land (Desirable) | 47,760 | 40,722 | 36,802 | 34,082 |
| Unit Cost -Building | 27,701 | 25,678 | 24,767 | 24,053 |
| Unit Cost-Equipment | 14,258 | 11,949 | 10,043 | 8,686 |
| Unit Capital Cost (Minimum) | 51,210 | 46,186 | 43,106 | 40,759 |
| Unit Capital Cost (desirable) | 89,709 | 78,349 | 71,612 | 66,821 |

Table 3 Estimated Unit Recurring Cost in Rs. for Engineering Colleges

| No. of disciplines | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ |
| :--- | ---: | ---: | ---: | ---: |
| Intake /Total Strength | $180 / 720$ | $240 / 960$ | $300 / 1200$ | $360 / 1440$ |
| Faculty Salaries | 18,600 | 19343 | 19,228 | 19,616 |
| Support staff salaries | 9,070 | 7,731 | 8,065 | 7,340 |
| Staff Development | 1,678 | 1,684 | 1,683 | 1,686 |
| Depreciation | 16,277 | 14,130 | 12,372 | 11,128 |
| Other Recurring cost | 8,600 | 8,600 | 8,600 | 8,600 |
| Unit Recurring Cost | 54,225 | 51,488 | 49,948 | 48,370 |

## A FEW AICTE NORMS

- Land:

| Rural | - | 25 Acres |
| :--- | :--- | :--- |
| District HQ | - | 10 Acres |
| Metropolis | - | 5 Acres |

- Plinth Area of Buildings:

| 3 Disciplines - | $20,025 \mathrm{M}^{2}$ |
| :--- | :--- |
| 4 Disciplines - | $24,750 \mathrm{M}^{2}$ |
| 5 Disciplines - | $29,850 \mathrm{M}^{2}$ |
| 6 Disciplines - | $34,775 \mathrm{M}^{2}$ |

- Student : Teacher Ratio:

Desirable
Lecture Classes

$$
=10: 1 \text { Minimum } \quad=15: 1
$$

Tutorials
$=60: 1$ Practicals $=15: 1$

Prof. : Asst.Prof. : Lecturer=1:2:4
Faculty: Supporting Staff $=1: 1.2$

- Equipment - to support batch size of 15

No. of Personal Computers - 1 for 4 Students (UG)

- 1 for 2 Students (PG)


## TERIP PROJECT

## (Technical Education Quality Improvement Programme)

- Project supported by the World Bank - Rs. 1500 Crores
- Project Implemented by NPIU - National Planning and Implementation Unit, Government of India and State Planning and Implementation Units of State Governments.
- Project is basically meant for developing the linkages, innovation and infrastructure of Technical Institutions (Both at Degree and Diploma Levels)
- Institutions which are accredited / Applied for accreditation only are eligible for selection.
- Networking of Institutions - Sharing of resources
- Degree Level Institutions - Nodal Institutions
- Networking Institutions
- Rs. 50 Crores
- Rs. 10 Crores
- Diploma Level Institutions
- Rs. 5 Crores
- Partly Grant and Partly softloan
- Karnataka State - Nodal : $\quad$ Proposed for as Nodal $\} \begin{aligned} & \text { NITK, Surathkal } \\ & \text { SJCE, Mysore }\end{aligned}$ Institutions.

UVCE, Bangalore
NMAIMT, Nitte

## Chapter V

## GRANTS-IN-AID POLICY

### 5.1. Current grants-in-aid policy for general higher education

Grants-in-aid (GIA) policy of the Government of Karnataka for higher general education is related to collegiate education in the State. Collegiate education is composed of 5 types of colleges, viz., General degree colleges (GDCs), Law degree colleges (LDCs), Fine Arts Colleges (FACs), Physical Education Colleges (PECs) and Colleges of Education (or B.Ed colleges). In terms of management and financing, these colleges are classified into 4 types: Government Colleges, Private Aided Colleges, Private Unaided Colleges and University Colleges. Courses offered by non-general degree colleges lead to the award of professional and vocational degrees. General degree colleges offer a few professional courses leading to the award of professional degrees (e.g. BBM) and general courses leading to the award of Bachelor's degree in science, arts and commerce.

A private college is aided, if it receives budgetary grants-in-aid (GIA) from the State Government. Government colleges are totally and directly funded by the State Government. University colleges receive the State Government's financial assistance from the block grants given to the University. Hence, only Private Unaided colleges do not receive any form of grants from the State Government.

At present, GIA is given only as a cent percent reimbursement of salary expenditure of working teaching and non-teaching staff in aided courses of aided private colleges. Further, no professional courses (e.g. BBM) and subjects (e.g. Electronics), as well as vocational subjects (e.g. Computer Applications and Fashion Design), in GDCs are eligible for GIA. In legal education, only 3-year LLB degree programme is eligible for GIA.

For administration, direction and disbursal of GIA, the colleges come under different departments. For instance, aided GDCs and LDCs come under the Department of Collegiate Education; B.Ed colleges come under the Directorate of State Educational Research and Training under the Department of Secondary Education; and FACs come under Department of Technical Education.

The framework for formulation and implementation of GIA policy for Private Aided Colleges is provided in GIA Codes. These Codes are separately available for Collegiate Education under the Department of Collegiate Education, and Colleges of Education. As GIA codes are not separately available for PECs and FACs, these colleges are subject to ad hoc GIA policy, if any, as per the Government Orders issued from time to time.

It should be emphasised that the GIA is a discretionary grant as the State government has all rights reserved in it with regard to changing and interpreting the rules and, hence, for extending or withdrawing of the grant. Thus, the GIA cannot be claimed as a matter of right. Further, an important pre-condition for the GIA is the availability of funds under the concerned heads of expenditure in the State budget.

The GIA policy has both promotional and regulatory objectives, such as, encouraging private enterprise/management in higher education through private-public partnership in financing; (b) regulation of working of aided colleges (e.g. staff recruitment, reservation policy and roaster system in recruitment, admission of students, and fixation of student fees); (c) reduction of total cost of providing education for the State Government, especially as compared to a hypothetical situation where all the aided colleges were to be established and totally funded as Government colleges; (d) equalisation of salary and service conditions for teaching and non-teaching staff in aided colleges on par with the staff in Government colleges and thereby, enabling the private college management to attract the best of qualified and experienced staff for improving the quality of teaching in the colleges; and (e) reduction in the cost of accessing collegiate education by students, as compared to a situation when the GIA is absent and the private colleges work on the basis of full cost recovery from students.

Over the years, the private aided colleges have contributed for the expansion of higher educational services throughout the State. For instance, of the 924 GDCs in the State, the share of Government colleges is 16.34 percent, Private Aided Colleges is 31.6 percent, Private Unaided colleges is 51.19 percent and University colleges is 0.87 percent. On the other hand, of the total student enrolment $(=288291)$ in 1999-00, the share of Government colleges was 19.85 percent, Private Aided colleges was 59.96 percent, Private Unaided colleges was 17.55 percent and University colleges was 2.64 percent. These data clearly point out that, though Private Unaided colleges are 51.19 percent of the total 924 colleges, they are very small with only 17.55 percent of total students' enrolment; while 31.6 percent of Private Aided Colleges carry 59.96 percent of the students. If University and Government colleges, which also receive grants from the State Government, are added to aided sector, then about 82 percent of students are on State Government supported institutions.

### 5.2. Budgetary allocation on GIA to collegiate education

All expenditure on GIA to collegiate education is in the form of revenue expenditure. Revenue expenditure is divided into plan and non-plan expenditure. GIA to GDCs, LDCs and B.Ed colleges are under non-plan expenditure and on FACs are under plan expenditure.

Table 1 presents select recent aggregate indicators of resource allocation on University and Higher Education (U\&HE) and on GIA to collegiate education within the State budget. The indicators in Table 1 highlight that:

- Share of revenue expenditure on U\&HE constitutes only about 2 percent of the total revenue expenditure of the State;
- Share of capital expenditure on U\&HE constitutes only about 0.1 percent of the total capital expenditure of the State;
- Share of revenue expenditure on $U \& H E$ is about 13 percent of the total revenue expenditure on general education;
- Revenue expenditure constitutes about 99 percent of the total expenditure on U\&HE;
- Non-plan expenditure constitutes about 98 percent of the total revenue expenditure on U\&HE;
- Share of GIA to collegiate education (excluding FACs) constitutes about 50 percent of total revenue expenditure on U\&HE;
- GIA to collegiate education (excluding FACs) as a percentage of total revenue deficit of the State Government has increased over the years, i.e., from about 7 percent in 200102 to 11.59 percent in 2003-04; and
- Share of expenditure on U\&HE in the net State Domestic Product is only about 0.5 percent.


## Table 1

Select indicators of budgetary resource allocation on University and Higher Education, and on GIA to Collegiate Education, in Karnataka State

| Sl. <br> No. | Indicator of budgetary allocation | $2001-02$ <br> (Accounts <br> or actual) | $2002-03$ <br> (Revised <br> Estimate) | 2003-04 <br> (Budget <br> Estimate) |
| :---: | :--- | :---: | :---: | :---: |
| 1 | Share of expenditure on University and Higher <br> Education (U\&HE) in total expenditure of the State <br> Government on revenue account | 2.39 | 2.39 | 2.26 |
| 2 | Share of expenditure on U\&HE in total expenditure <br> of the State Government on capital account | 0.05 | 0.09 | 0.05 |
| 3 | Share of expenditure U\&HE in the total expenditure <br> on general education on revenue account | 13.26 | 13.87 | 13.03 |
| 4 | Share of revenue expenditure in total expenditure on <br> U\&HE | 99.77 | 99.48 | 99.65 |
| 5 | Share of non-plan expenditure in total revenue <br> expenditure on U\&HE | 95.27 | 97.31 | 97.80 |
| 6 | Share of GIA in total expenditure on U\&HE on <br> revenue account | 51.98 | 49.82 | 49.92 |


| 7 | GIA to collegiate education as a percent of revenue <br> deficit of the State Government | 7.04 | 7.14 | 11.59 |
| :---: | :--- | :---: | :---: | :---: |
| 8 | Share of expenditure on U\&HE as a percent of Net <br> State Domestic Product at current prices | 0.46 | 0.48 | 0.49 |

Notes: (a) All figures in the table refer to percentage. (b) All expenditure on University and Higher Education and on GIA to collegiate education are net of arrears paid on account of pay revisions to college and university teachers with effect from January 1, 1996. (c) Using the deflators for estimation of State Domestic Product at constant prices, (i.e.1.560173 in 200102 and 1.6193017 in 2002-03), the budgetary expenditure on U\&HE, in real terms, was 64.10 percent of nominal expenditure in 2001-02 and 61.76 percent of nominal expenditure in 2002-03.

### 5.3. Current level of GIA to collegiate education by types of colleges

Select indicators of current level of GIA (i.e. plan and non-plan accounts) to collegiate education are presented in Table 2 below.

Table 2

Current level of GIA to collegiate education in Karantaka State: 2002-03

| Type of aided colleges | Number | Total | Amount of | Amount | Amount of |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | of aided |  |  |  |  |
| colleges | enrolment | GIA <br> of students | (Rs. in <br> of GIA <br> per | GIA per <br> college |  |


|  |  | in aided <br> colleges <br> $(2000-01)$ | lakh: <br> Revised <br> Estimate) | student <br> (Rs.) | (Rs. in <br> lakh) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 1. General degree colleges | 292 <br> $(89.95)$ | 159834 <br> $(96.20)$ | 23660 <br> $(96.98)$ | 14787 | 80.94 |
| 2. Law degree colleges | 8 <br> $(2.46)$ | 3451 <br> $(2.08)$ | 134 <br> $(0.55)$ | 3882 | 17.75 |
| 3. Colleges of Education | 22 <br> $(6.77)$ | 2200 <br> $(1.32)$ | 554 <br> $(2.27)$ | 25136 | 25.14 |
| 4. Fine Arts colleges | 3 <br> $(0.92)$ | 671 <br> $(0.40)$ | 50 <br> $(0.21)$ | 7451 | 16.67 |
| 5.Physical Education colleges | 0 | Not <br> applicable | Not <br> applicable | Not <br> applicable | Nopplicable |
| All colleges | 325 | 166156 <br> $(100.00)$ | 24397 <br> $(100.00)$ | 14668 | 74.99 |

Note: Figures in the parentheses are percent to column's total.

It is apparent in Table 2 that, of all the types of aided colleges, GDCs constitute the largest number, comprising about 90 percent in total number of colleges, 96 percent in total enrolment of students, 97 percent of total budgetary allocation and Rs. 81 lakh of GIA per college. Within the total enrolment of students in GDCs, the share of SC\&ST students is about 18.41 percent and female students is about 50 percent. However, in terms of GIA per student, GDCs stand next to the B.Ed colleges. Since female enrolment is about 50 percent, besides 18 percent of SC\&ST students, this vulnerable category would be hardest hit, if GIA is withdrawn.

In addition, in terms of geographical distribution of all aided colleges, 44 percent are located in South Karnataka, 41 percent are located in North Karnataka and 15 percent are located in Coastal Karnataka. It should be emphasised that absence of aided PECs is a noteworthy feature of collegiate education under general higher education in the State.

### 5.4. Justification of the Government of Karnataka for reduction in GIA to collegiate education in recent past

From the viewpoint of the State Government, the following justifications for reduction in GIA to collegiate education are identifiable in the recent past.

- Lack of budgetary resources to meet the existing needs of GIA
- To switch budgetary expenditure from higher education to meet the increasing needs of resources for establishment and expansion of school education in backward areas
- The presumption that the aided colleges are financially strong enough to mobilize their own resources


### 5.5. Measures for reduction in GIA to collegiate education in recent past

In recent past, the GIA to collegiate education has been reduced by the Government of Karnataka in following ways.
(i) All the private degree colleges established after June 1, 1987 have been started on permanently non-GIA basis.
(ii) Since 1990-91, no new courses have been brought under GIA.
(iii) Since 1993-94, there has been a ban on filling up vacant position of nonteaching staff.
(iv) A large number of teaching posts has remained vacant for several years and is being gradually converted into unaided posts. For instance, in February 2003, there were

270 Group A and B posts, and 1397 Group C and D posts vacant in aided colleges under the Department of Collegiate Education.
(v) In the State budget 2000-01, a 15 percent cut in GIA to the colleges was announced to overcome, at least partially, the burden of implementing new pay scales and payment of arrears to teaching staff. Since the private college management refused to bear the burden of the $15 \%$ cut, the Government decided to freeze recruitment of then vacant teaching and non-teaching positions, and reallocated the resultant savings towards the reduced GIA (hence, full salary payments for the staff in 2000-01).
(vi) Bifurcation of pre-university education from the composite degree colleges in 200102 which, in the long run and other things being the same, was expected to reduce the salary expenditure on teaching staff in collegiate education, as salary scales of junior college teachers are less than those of degree college teachers.
(vii) Closure of traditional courses in aided colleges where the enrolment of total students in a course was less than 40 students and/or where the workload for the teaching staff was not full (e.g. 16 hours of teaching for non-science teaching staff). The staff of such closed courses had been transferred / deployed to other aided colleges where the workload existed, or to newly established Government colleges.
(viii) Increase in student fee with built-in provision for annual upward revisions.

Consequent upon the above measures, the amount of GIA to collegiate education has come down than what it would have been in the absence of the measures. Nevertheless, to date, no empirical evidence is available on the impact of these measures.
5.6. Recent proposals for restructuring of GIA policy by Government of Karnataka

A Committee under the Chairmanship of the Additional Chief Secretary was constituted by the Government of Karnataka to make a comprehensive review of the GIA system/policy of the State Government. In the meeting held on January 17, 2003, the Committee decided to prepare a discussion paper on the proposals for restructuring of GIA policy in the State. Accordingly, the discussion paper was released around February 10, 2003. The proposals in the discussion paper were intended for discussion with stakeholders in the school and higher education system in the State. To facilitate the discussion and to report the feedback before March 1, 2003, a separate sub-committee on higher education [comprising Secretary to Government (Higher Education), Commissioner of Collegiate Education and Director of Technical Education] was constituted. The major proposals in the discussion paper, as they are related to collegiate education under general higher education, are as follows.

## Proposal 1

- No new colleges to be brought under the GIA codes under general higher education. However, one-time development grants to be given for new colleges in backward areas.


## Proposal 2

- To bring in a practice of step-by-step phasing out of GIA for currently aided institutions over next 5 years. This is called Exit Policy. The proposed method of implementing this policy is to stop GIA for 10-year old colleges in urban areas and for 15 -year-old colleges in rural areas.


## Proposal 3

- Colleges to be brought under Exit Policy (a) shall not reduce the salary and allowances of existing staff, and fee exemptions and concessions for SC/ST and backward communities; (b) shall have opportunities to levy higher fees; and (c) shall be subject to recruitment of teaching and non-teaching staff as per the qualifications, prescribed by the Government


## Proposal 4

- Colleges to be brought under Exit Policy may be considered for a new student-based grant system, which shall be dependent on number of students appearing for final year examinations. Per student per year grant to a college shall be based on unit cost of running a "typical college" in the State.


## Proposal 5

- The savings of resources through Exit Policy (i.e. net of implementing the studentbased grant system) shall be redeployed to bring new schools on GIA. Of the new schools, 25 percent of schools shall be under the management of Scheduled Castes and Scheduled Tribes.

In essence, the proposed changes in the GIA Policy aims at (a) expenditure reduction for higher education as an instrument for higher allocation of budgetary resource for lower levels of education; and (b) changing the base of grants from the present staff-based grant system to a proposed student-based grant system. In addition, the proposed GIA policy has in-built provisions for safeguarding for salary and allowances of staff, fee concessions and exemptions for students, and qualifications for staff recruitment. These safeguards may be intended to ensure quality and equity in higher education, notwithstanding the reduction in GIA under the proposed Exit Policy and Student-based grant system.

### 5.7. Implications of the proposed changes in GIA policy

A closer analysis of the proposed changes in GIA policy reveals the following policy implications.

### 5.7.1. No new colleges on GIA

At present, all new colleges, which have been established after June 1, 1987, are on permanent non-GIA basis. The new proposal extends this measure to all colleges, whether or
not they were started on or before June 1, 1987. Hence, the proposed measures will eliminate the GIA on plan expenditure, as it has been meant for bringing new colleges (started, however, before June 1, 1987) under GIA code.

### 5.7.2. Exit Policy

For implementing the Exit Policy, the existing aided colleges should be identified by their geographical location (i.e. rural/urban) and duration of benefits from GIA policy. A quick glance at the location pattern and duration of GIA by type of colleges in Table 3 below shows the following implications of the Exit Policy.

First, of the 292 GDCs, 253 colleges ( 87 percent) are located in urban areas and, similarly, all the aided colleges in education, law and fine arts are located in urban areas. Thus, the Exit Policy for rural colleges is applicable only for GDCs.

Second, if the proposed Exit Policy is implemented, 78 percent of urban GDCs, 64 percent of rural GDCs, 75 percent of LDCs, 68 percent of B.Ed colleges and 100 percent of FACs will be out of GIA immediately, as they have been receiving grants for 10 years in urban areas and 15 years in rural areas.

Third, in terms of current levels of GIA as given in Table 2, the total resource saving to the State Government will be equal to Rs. 20930.49 lakh, or 85.88 percent of total GIA to collegiate education in 2002-03.

Fourth, at the end of the next five years from 2003, another 31 colleges in urban areas and 13 colleges in rural areas will be out of the GIA policy. Thus, the cumulative total number of colleges to be out of GIA in 2008 will be 98.63 percent of GDCs, 100 percent of LDCs and 96 percent of B.Ed colleges. Or, 98.46 percent of 325 presently aided colleges will be out of GIA policy by 2008. In essence, this means that the State Government will take no developed or developing countries.

Table 3

## Implications of Exit Policy for collegiate education in Karnataka State

| Type of colleges | Number of aided colleges | Number of aided colleges located in urban (rural) areas | Number of aided colleges, located in urban areas and on GIA for more than 10 years in 2002* | Number of aided colleges, located in rural areas and on GIA for more than 15 years in 2002** | Number of aided colleges, located in urban (rural) areas and will be on GIA for more than 10 (15) years over next 5 years*** |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1.General degree colleges | 292 | 253 (39) | 227 | 25 | 23 (13) |
| 2. Law degree colleges | 8 | 8 (0) | 6 | 0 | 2 (0) |
| 3. Colleges of Education | 22 | 22 (0) | 15 | 0 | 6 (0) |
| 4. Fine Arts colleges | 3 | 3 (0) | 3 | 0 | 0 (0) |
| All colleges | 325 | 286 (39) | 251 | 25 | 31 (13) |

Notes: (i) Figures in parentheses are number of colleges in rural areas. (ii) Urban or rural colleges are those which are located in rural or urban places as per Census of India 2001 (Karnataka: Series 30). (iii) * Year of bringing under GIA code is before 1992. (iv)** Year of bringing under GIA code is before 1988. (v) ${ }^{* * *}$ Year of bringing under GIA codes shall be before 1997.

### 5.7.3. Extent of fee revision

In order to cope with the new situation under the Exit Policy, colleges are proposed to have an opportunity for increase in fees. This is intended to recover, among others, the expenditure on staff salary due to withdrawal of GIA. For this purpose, the fee escalation will have to be equivalent, on an average, to the per capita grant to the colleges, as shown in Table 2, unless the college management shall be ready to share the additional expenditure with the students, especially for Scheduled Castes and Tribes and other backward communities. However, a part of this additional burden may be subsidized to the needy and deserving students through the new system of student-based grants to the concerned colleges.

If all the students in aided GDCs were to pay all the prescribed fees of the State Government in 2002-03, the resultant total fee collection would have been Rs. 11.43 crore. This assumes that all students pay all fees including laboratory fee, although the laboratory fee is payable only by science students. However, if only the tuition and laboratory fee were doubled, the total fee collection would have been equal to Rs. 19.58 crore. As a percent of total GIA to GDCs in 2002-03, these fee collections would have constituted 4.84 percent and 8.28 percent respectively. Thus, for total cost recovery on account of withdrawal of GIA to GDCs, the total fee should have been increased by a minimum of 21 times more than the total fee charged in 2002-03. The question is how many families would have that amount of money to support their children in colleges.

Hence, an increase in student fees raises many issues relating to access to and affordability of higher education, especially for poor but merit students in all castes and communities. Although (a) education loan from commercial banks, and (b) scholarship, free studentship and other forms of transfer payments from the Government and colleges, are often argued as mechanisms to offset increased cost due to fee hike, the extent of availability and accessibility of these resources for all students and the feasibility of families taking such loans are not ascertained.

Aided GDCs have been the major source of higher education in basic sciences, humanities and social sciences. In the recent past, there has been a decline in enrolment in general degree education, especially in science education, in the State. The decline is explained by many factors, such as, poor quality and relevance of degree education and overemphasis on professional education especially information technology and management courses. Hence, any steep increase in student fee may have a negative impact (empirically unconfirmed, however) on future enrolment of students in GDCs. In particular, female students will be hard hit by the fee increase, as they constitute about 50 percent of total enrolment in GDCs. This will be a regressive step for the State Government.

### 5.7.4. Student-based grant system

Proposed introduction of student-based grant system is a significant departure in the GIA system in the State. In principle, the new system of GIA takes the number of students, appearing for the final year examinations in the colleges, as a base for determining the quantum of grants. While the UGC has recommended unit cost system, which is prevalent in the United Kingdom (UK), neither the UGC nor the UK model base it on the number of students appearing in the final examinations, but on the number of students to be admitted in a college as sanctioned by the Government. Hence, the proposed system is not in line with such existing systems.

Implicitly, the new system of grant has two other important implications. First, colleges to be brought under Exit Policy are eligible for new system of GIA. Second, per student per year grant shall be determined on the basis of unit cost of running a "typical college" in the State. This calls for (a) defining the components of cost of education for the purpose of estimation of unit cost, and (b) determining criteria for selecting a "typical college" as a model college for estimation of unit cost. These important aspects of estimation of unit cost are not addressed in the discussion paper, although they are essential for the proposed introduction of student based grant system.

### 5.7.5. Other implications

First, the proposed changes in GIA policy aim at reallocation of GIA between levels of education, between types of colleges and college management. Thus, total GIA for the private education sector as a whole is not reduced in the State.

Second, under the proposed policy changes, the basis of GIA shall change from teacherbased grants to student-based grants. At present, grants are independent of the number of students and, in the proposed system, grants shall be independent of the number of teachers in the colleges.

Third, while the proposed GIA policy is discriminatory in regard to location of colleges and duration of GIA to the colleges, it does not differentiate (a) between subjects in a course or courses in a college, (b) between colleges located in backward and forward areas, (c) between colleges in terms of the composition of students who are female, scheduled castes and tribes, and other backward communities, (d) between colleges in terms of having professional and vocational courses and traditional (i.e. non-market oriented, culture promoting and protecting) courses and (e) between colleges managed by SC\&ST, minorities and others. Further, for lack of information on finances of the private aided colleges, the proposed GIA policy does not discriminate between financially strong and weak colleges. Consequently, the proposed changes in GIA policy are unrealistic and unjustifiable from the viewpoint of equity.

### 5.8. Observations of the Task Force on Higher Education of the Government of Karnataka

In regard to the current and future funding of higher education in general and GIA policy for collegiate education in particular, the Task Force observes the following points.
5.8.1 The importance of higher education for overall economic development of India in general, and Karnataka in particular, needs no greater emphasis today. To quote from a recent World Bank book: "The role of tertiary education in the construction of knowledge economies and democratic societies is more influential than ever. Indeed, tertiary education is central to the creation of intellectual capital on which knowledge production and utilisation depend and to the promotion of the lifelong-learning practices necessary to update individual knowl-
edge and skills". ${ }^{2}$ In fact, the availability of skilled human resource is one of the contributory factors for enormous growth of high-tech industries in the State, especially by multinational companies, in information technology, electronics and communications, machine tools, engineering, automobiles, auto-components, food processing, readymade garments, pharmaceuticals, and aero-space. Moreover, in an era of global competition including educational services, the need for enhancing and strengthening of quality and relevance has added newer demands for resources for higher educational institutions. In this regard, continuation and enhancement of Government support for higher education is essential.

In order to further accelerate economic and social progress, and increase the inflow of foreign direct investment and exports, and to achieve the Vision Statements of the State: (e.g. overall growth rate of $8 \%$ to $9 \%$; average annual industrial growth at $12 \%$; Fully tap world markets in information technology and average annual growth of employment at 3.15 percent, during 2000-2010), the State should invest more resources on higher education.

If the international experiences of high performing economies is any guide, expenditure on education should be not less than 6 percent of State Domestic Product, though the requirement today is nearer 10 percent, and expenditure on higher education (or, broadly speaking, tertiary education) should not be less than 20 percent of public education expenditure. Most recently, Professor CNR Rao has endorsed this point: "In order to become a progressive country, we have to invest more in education, particularly higher education, for both short and long term benefits. We should achieve the 6 per cent GDP target for education in next 2-3 years". ${ }^{3}$

In 2003-04, the State has budgeted to spend 14.82 percent of total expenditure on education sector (i.e. general and technical education). As a percent of net State Domestic Product, total budgeted spending on education sector is about 3.74 percent. Within the education sector, the share of university and higher education is about 1.95 percent (excluding the contribution of Central Government). Thus, there is a clear need for substantial increase in public expenditure on higher education within the State. This will go a long way in achieving

[^1]the target of 12 percent Gross Enrolment Ratio, as envisaged in the Departmental Medium Term Fiscal Plan for the Collegiate Education: 2003-04 to 2005-06, by the Government of Karnataka.
5.8.2 Within the State budget, the treatment of expenditure on higher education on revenue account has led to the misunderstanding that expenditure on higher education is consumption-oriented and, hence, unproductive. In reality, expenditure on GIA is a form of investment for long term human capital formation in the State, the benefits of which would be available for the State. Thus, all input and output funding in higher education should be considered as a form of productive human capital expenditure in the budget. This will justify enhanced budgetary allocation for higher education in the State.
5.8.3 Surprisingly, as per the Medium Term Fiscal Plan for Karnataka 2002-03 to 2005-06, expenditure on higher education is not listed as"high priority development expenditure". Given the utmost importance and contribution of higher education to State and nation building activities, there is every justification to treat higher education as a high priority development expenditure. This will provide a base for allocation of additional budgetary resources for higher education in the State.
5.8.4 There is a need for distinguishing GIA policy and subsidization policy for higher education in the State. In general, subsidy refers to difference between the cost of provisioning of educational services and recoveries from the beneficiaries of the services. Given the cost, increase in recovery is an inevitable way of reducing the subsidy. If GIA is added as a part of recurrent cost, then a reduction in GIA would imply a reduction in subsidy from the viewpoint of cost reduction.

It should be emphasised that none of the public committees or research reports on Karnataka's higher education has ever recommended reduction in public expenditure on higher education in general, and reduction in GIA in particular. Rather, what they have emphasised is a greater cost recovery by assuming that higher education is a "non-merit
service". Thus, cost recovery rather than cost reduction is the focus of financial reforms in higher education, especially to reduce the growing size of budgetary subsidies to higher education. These committee and research reports of the Government of Karnataka include the following.

- Report of the Karnataka Universities Review Commission, 1993
- An Approach to Subsidies in Karnataka, Plan Finance \& Resource Division, Planning Department, State Planning Board: 1997
- Grants-in Aid to Private Degree Colleges in Karnataka State: Current Status and Future Policy Alternatives, Education Department: 1999
- White Paper on Karnataka State Finances, Finance Department: 2000
- Report on Volume and Composition of Budgetary Subsidies to Higher Education in Karnataka State, Finance Department: 2001
- Report of the Sub-sector Study on Collegiate Education, Education Department: 2001
- High Power Committee for Redressal of Regional Imbalances, Government of Karnataka: 2002
- Medium Term Fiscal Plan for Karnataka 2002-03 to 2005-06, Finance Department: 2002
- Departmental Medium Term Fiscal Plan for Collegiate Education 2002-03 to 2005-06, Education_Department: 2003

Thus, reduction of GIA should not be treated as an instrument for reduction of budgetary subsidies to higher education in the State.
5.8.5 There is a need for continuing with GIA to higher education in the State for the reason that higher education is no more a "non-merit service" in terms of absence of externalities. For instance, as the World Bank argues: Higher education investments are important for economic growth. They increase individual's productivity and income, as indicated by rate-of-return analysis, and they also produce significant external benefits not captured by such analysis, such as the long-term returns to basic research and to technology development and transfer. ${ }^{4}$ Further, as Professor CNR Rao writes: "It is self-destructive to say that subsidies for higher education should be removed. Even in the advanced countries, some of the best institutions are state-supported".

Most recently, the need for State aid is argued from the viewpoint of providing inexpensive non-professional education in the Supreme Court Judgement [Case No. Writ Petition (Civil) 317 of 1993, dated October 31, 2002), delivered by Chief Justice of India, Sri Kirpal.

There are a large number of educational institutions, like schools and non-professional colleges, which cannot operate without the support of aid from the state. Although these institutions may have been established by philanthropists or other public-spirited persons, it becomes necessary, in order to provide inexpensive education to the students, to seek aid from the state. (para 73).

Thus, higher education should not be subject to reduction in budgetary subsidies or GIA in the State.
5.8.6 In order to improve the finances of collegiate education and funding for higher education, the following fiscal and non-fiscal measures should be undertaken by the State Government.

* Colleges should be encouraged to seek permanent affiliation from the State Government and universities to qualify for UGC development grants
* Colleges should be encouraged to apply for autonomy, as autonomous colleges are eligible for special financial assistance from the UGC

[^2]* Introduction of a tax on the income earned by graduates of higher education like a professional tax
* Introduction of a tax on the employers of the graduates of higher education, similar to that of employers' contribution to the Contributory Provident Fund, or, as a one time charge on recruitment.
* Introduction of a special tax on profits of knowledge-based industries, such as, Information Technology and other export-oriented industries towards a fund for education
* Encourage aided colleges, which have the capacity to do so, to voluntarily opt out of GIA system. As a consequence of this option, however, the better colleges will be non-grant and become elite colleges unless students unable to pay should be borne by the Government.
5.8.7 Since 1977, the State Government directly gives salary to teachers in aided colleges through the joint account maintained in the colleges. Remittances to joint account include collection of tuition fee at standard rates from within the colleges. In the ultimate analysis, all salary payments from the joint account are net of prescribed fee remitted to the joint account. Thus, once the college is brought under GIA codes and the staff is recruited on aided posts, the college management does not take the responsibility for payment of salary for the aided staff. Consequently, any reduction in GIA would directly reduce the salary of aided staff in the colleges. Obviously, this is unacceptable for the aided teachers in the aided colleges and they vehemently oppose the Exit Policy. For instance, Teachers' Associations like the Federation of University and Colleges Teachers' Associations in Karnataka State have remarked that proposed change in GIA policy "are detrimental to the existence of private aided degree colleges". Hence, the State Government will find it difficult to reduce the present form of GIA to collegiate education without creating great resentment among aided teachers.
5.8.8 Student-based grants and transfer payments have been argued elsewhere in the above Government of Karnataka reports as alternative ways of helping the students to pursue higher ed-
ucation. The student-based grant system will go a long way in targeting and bring in greater accountability in public spending on collegiate education. At the same time, it makes the allocation of grants competitive, as the size of grant would be dependent upon the number of students sanctioned to the college. Thus, a proposal to introduce a student-based grant system should be considered seriously because of these advantages. However, the grant has to be based on the number of students at admission, agreed to by the State Government in a specific college, and not on the number of final year students.

For identification of the composition and estimation technique of unit cost at the institutional and/or departmental level, the recommendations of the (i) Report of Justice Dr K. Punnayya Committee - 1992-93 on UGC Funding of Institutions of Higher Education (University Grants Commission: 1993) and (ii) Report of the Pylee Committee on the Recommendations of the Punnayya Committee relating to Unit Cost of Higher Education and Other Issues, (University Grants Commission: 1997) should be consulted. For instance, the Pylee Committee takes into account only the recurrent cost for estimation of institutional unit cost. Total cost is sum of academic cost (e.g. salaries for teaching staff, academic services, and student welfare activities) and administrative cost (e.g. general administration, common services and general charges). Per student unit cost of education is determined by dividing total cost by total enrolment.

To work out the above details for implementation of student-based grant system, a transitional period of 2-3 years may be required. In the meanwhile, the present system and form of GIA to collegiate education should be maintained and continued.
5.8.9 Several measures have been introduced for the reduction of GIA to collegiate education since 1990-91. The impact of these measures is not clear on the magnitude of savings, or utilization of saved resources for development of school education in backward areas, or on quality of education in aided colleges. Thus, it is difficult to pass a judgement on the measures that have been introduced to reduce GIA. However, it would be useful if a study is made on the measures taken and to reflect the above parameters with a view to formulate policy for clear cut direction for aiding colleges in higher education.

### 5.9.Recommendations of the Task Force

The Task Force on Higher Education of the Government of Karnataka recommends the following measures for current and future funding of higher education in general and GIA in particular.
5.9.1 The Report of Justice Dr K. Punnayya Committee (1992-93) on UGC Funding of Institutions of Higher Education has made valuable recommendation on improving the financial situation in regard to central universities and institutions deemed to be universities. In a way, several recommendations in Punnayya Committee Report are of general relevance and particularly for institutions in higher education including collegiate education in the State. These general recommendations (given in Appendix I of the Report: pp.107-113) are quoted below. (a) State or Government funding must continue to be an essential and mandatory requirement for support to higher education. (b) Tuition fees may be revised upward with immediate effect and may be periodically adjusted, keeping in view the rate of inflation. (c) Fees for library, laboratory, sports should be revised upwards to recover a significant part of the recurring cost. (d) Hostel fees should be revised with immediate effect to meet all the actual recurring cost and in due course of time, a part of capital cost as well. (e) The income derived from enhancement of fees should be utilised to augment fellowship and scholarship programmes for ensuring access to weaker sections. (f) Unit cost system of calculation of eligibility for grants should replace the existing incremental system. (g) An optimum division between academic and non-academic costs should be arrived at to help in stabilising the maintenance expenditure.
5.9.2 Public expenditure on education in the State should be increased, in the first phase, to 6 per cent of the Net State Domestic Product and gradually up to 10 per cent as state finances improve. Six per cent has been suggested since the well-known Kothari Committee Report in the sixties and, with the current size of our population, it has come nearer to ten per cent.
5.9.3 Within expenditure on education, expenditure on higher education should be increased to 20 per cent at least.
5.9.4 All input funding in higher education should be considered as a form of productive human capital expenditure in the State budget and, hence, as an investment. With globalisation, increased competition and knowledge driven economies, this investment has become particularly necessary if the State is to survive in the new environment.
5.9.5 Higher education should be treated as one of the "high priority development expenditure" in the State. Without appropriate funding, the State cannot be expected to survive in a knowledge society and a competitive world economy. Hence, it should not be subjected to reduction as a subsidy but treated as its investment for development.
5.9.6 The State Government may address the following methods to increase funding for collegiate education in particular and higher education in general.
5.10.1 Grant permanent affiliation to colleges and provide autonomy as funds can be accessed from the UGC on both counts.
5.10.2 Instead of loans, which have a poor history of returns in most countries, tax the educated employed over their working life taking into consideration the income earned.
5.10.3 Tax employers of those who employ graduates of the system based on the nature of the degree and the salary. Such a tax should include all employers, government and private companies and should be one-time for a new recruit.
5.10.4 Place a small tax on IT and other knowledge based industries as they maximally employ graduates of the system.
5.10.5 Permit colleges that do not want grants, to opt out as it is done in the case of schools, which do not take grants.
5.10.6 The principle of fee based on "capacity or ability to pay" requires introduction for a system of tuition fees based on the type of school attended with a higher level of fees from those who went to high fee paying schools, next grade to those who went to middle level fee pay-
ing schools, the third level for those who went to aided schools, and the lowest fees for those who went to Government/Municipal Schools. Only then we will have equity in terms of cost of education to the individual. The college admission form and the school-leaving certificate should carry the fees paid. If the school had given concession, the school and the department of education should certify this.
5.10.7 The pattern of GIA should change to the unit (student) system based on the number of students to be admitted to the first year as sanctioned by the Government with reference to the capacities of the college. The recommendations of the Pylee Committee may be followed in computing the same. Since it may take 2-3 years to finalise the new pattern, the present system of grant-in-aid should continue. In the transitional period, an expert group could develop the change over to unit cost system.
5.10.8 A detailed study on the impact of measures, already implemented to reduce the GIA, should be undertaken to provide policy implications for changes in the GIA.
5.10.9 In aided colleges, the aided teachers should be allowed to teach the unaided courses and this work should be eligible for GIA. This permission will optimise the use of the time of the teachers.
5.10.10 Funding in aided colleges may be examined in relation to Government colleges in order to evolve an integrated policy for allocation of resources to the entire collegiate education sector in the State, especially (a) to protect courses which are not necessarily popular for their preservation and transmission to successive generations, e.g. Philosophy or ancient languages and (b) to meet with requirements of higher education for future expansion of child and adolescent population.

## Chapter VI

## Strengthening Governance in Higher Education

### 6.1. Preamble

Governance in Higher Education is a subject of great interest amongst governments, academicians, policy makers, administrators and managements across the world. This is rightly so considering the impact it has on how the higher educational system develops and responds to societal needs in short and long term.
"There are basic reasons why academic institutions are organized and governed as they are, in the service of education and research and of excellence in these pursuits. Boards exist, in part, to ensure freedom and creativity and to protect the processes and the health of the environment that make them possible. In short, they exist for sustenance of a mission and its related goals." ${ }^{5}$

Thus, in the absence of sound and effective governance, the higher education system may tend to move away from its primary character and mission. The governance of higher education must ensure that it anticipates and meets the current and emerging requirements of all its stakeholders, viz. the higher education system and the society and its institutions. It is vital for all stakeholders to maintain the difference between "Governance" and "Management". While the former deals with the reinforcement of ethics, objectivity, transparency and unbiased independence, the latter deals with efficiency and effectiveness of ongoing operations of respective institutions. It is easy for governance practices to transgress into the management system and vice versa. Those designing governance frameworks and management processes must be careful about maintaining this key distinction.

[^3]It must be noted that the elements of governance differ depending on the state of the "demand" for higher education. In an environment where the demand far exceeds the supply, it is essential to ensure that educational governance focuses on factors influencing access, equality and availability alongside the stress on quality and relevance. This may require active participation of the society at large (including alumni) in articulating expectations, generating funds and garnering resources required to improve the availability.

Governance of higher education in Karnataka has evolved over time, and key changes suggested by various think tanks associated with the Government, UGC, NAAC etc. have been deliberated for bringing the required improvements. However, the areas requiring immediate attention are highlighted here under 3 overall perspectives: (1) Governance structure, (2) Role of Governance and (3) Governance processes.

### 6.2. Governance Structure

The governance structure of higher educational establishment in the State, is presently organized in a 3-tier system namely at the state level (Inter University Board - IUB or State Council of Higher Education), the university level (Syndicate) and institution level (Respective College Boards). Though Governance boards exist in their current forms (e.g. IUB, Syndicate and Board for each institute), the following section recommends actions required to make this governance structure more effective in building a strong educational system.
6.2.1 State Council of Higher Education: The State of Karnataka has set up the Inter University Board (IUB) chaired by the Minister of Higher Education, consisting of the Vice-Chancellors of all universities, Secretaries of some departments of the State Government, Directors and Commissioners of education. However, in some other states a similar role is performed by the State Council of Higher Education set up as per the guidelines defined by the UGC. Such State Councils have a larger number of academicians and a relatively smaller number of administrators.

It is recommended that the IUB be replaced by State Council of Higher Education (SCHE) on the lines suggested by the UGC in its report dated January 1988. Such a council should be chaired by a renowned academician and be composed of members with sufficient representation for key academics and leaders in business, industry, services and NGOs i.e. leading personalities of society from different professions, chosen through an objective and independent selection process. There shall be a committee to select an eminent and renowned educationist as chairperson of SCHE. The composition of the selection committee, may be as follows:

## 1. Chief Justice of High Court of Karnataka (Chairperson)

2. An eminent educationist / former Vice-chancellor to be nominated by the Governor of Karnataka-member
3. Principal Secretary, Higher education, Government of Karnataka- member secretary

The selection committee shall shortlist and recommends at least 3 names to the Chancellor who shall select one suitable person as chairperson of SCHE.

For the selection of the members to the SCHE, the above-mentioned committee along with the Chairperson of SCHE shall shortlist the persons to be members of SCHE at a ratio of 1:3 and submit it to GOK. The Chief Minister and the Minister for Higher Education, in consultation shall select the members as per the provisions of SCHE.
6.2.2 University Syndicate While the Syndicate is responsible for the governance of the universities in the State of Karnataka, their functioning may be improved by considering the following recommendations:
a) Currently, the selection of the members of the Syndicate is decided by the Minister of Education based on nominations received from various quarters. The process and transparency of selection must be improved to enhance the credibility of the Syndicate.
b) A nomination committee out of the members of the SCHE must be formed at SCHE to identify candidates in the ratio of 1:3 for selection to the Syndicate. Nominations should be reviewed and short listed by the State Council and forwarded to the Minister for Higher Education for final selection. Criteria to nominate, shortlist and select Syndicate members should be documented and made formally available prior to the selection process. The ViceChancellor of the respective universities should be co-opted as members to the respective nomination committee.
c) During this process, the State Council must ensure that they have evaluated any conflict of interest amongst the nominees and that they have no vested interest in gaining membership to the Syndicate. Also, the members of the Syndicate should be required to sign disclosure norms wherein they must be required to declare any conflict of interest that may arise during their tenure on the Syndicate.
d) The minutes of the meetings of the Syndicate must be communicated to the State Council for the purposes of perusal, seeking feedback on policy issues and ensuring appropriate disclosure of decision making. The Chancellor should retain the right to overrule the ruling / decision by the Syndicate in the interest of the society, on the advice of the SCHE.
e) The Syndicate should not be involved in discharging ongoing management activities. To illustrate, the Syndicate should not formulate its sub committees like purchase or infrastructure committees or other committees like MPC etc. In particular the nominated members of the Syndicate and academic council shall not be the members of sub committees- LIC, purchase, building, MPC and several other such sub committees in vogue. Such matters should be best left for management by the Boards of the Institutions based on the approved budgets. The Syndicate shall formulate policies and monitor whether the policies and recommendations are implemented in accordance with statutes and regulations as part of their meetings.
f) The SCHE may ensure and monitor attendance of members of Syndicate and academic council. A nominated member remaining absent continuously for 3 meetings without appropriate permission/valid reasons must be withdrawn from the membership by SCHE-nominations committee from the respective Syndicate/Academic councils.
6.2.3. Board of Management of the College: It is observed that most of the institutions/ Colleges (except that of government) have independent Boards for Governance and Management. Government colleges have CDC's(College Development Council) with local MLA as Chairperson. This should be replaced in all colleges by a board of management, chaired by an eminent academician and Principal being the member secretary. The maximum strength of such college boards be restricted to 11 to 15 based on the size/nature of the college. It may have one academician, 2 chairpersons of departments of the college on rotation, an alumni and a parent representative and representative of Society/Trust/ CCE in case of Government colleges. All the members may be nominated by Society/Trust./ CCE giving proper representation to industry/service sector/research institutions. This board of management of each college shall have
powers to formulate policies, perspective plan and monitor the activities of the college. It can also act as grievance redressal cell. It shall meet at least four times a year (once per quarter). The following recommendations are directed towards making the boards more effective.
a) The Boards of management at the college level must be formed through careful selection of members who would be active and attend all the board meetings with commitment and regularity. The institute level boards should desist from selecting those associated with political parties and interests.
b) The board must be urged to focus on providing intellectual inputs towards the development of the institution. The performance of the board must also be evaluated and feedback provided to the members so that they can improve their contribution and participation. The appraisal of the College Board /its members may be made by the university either through LIC affiliation process or any other suitable process.
c) The relationship between the College Board of management, and that of the GC/MC of society/trust should be such that both have very clearly defined non-overlapping but synergistic roles to meet the objectives of the college.
d) It is essential to ensure that all the above governance structures have adequate women representation. Towards this, it is necessary to stipulate that as far as possible $50 \%$ of positions would be filled by women representatives on each of these Boards. This would promote gender justice of decisions.

### 6.3. Role of Governance

6.3.1 The 3-tier governance structure described above plays multiple roles in steering the higher education system towards its vision/ mission, reinforcement of ethics, objectivity, transparency and unbiased independence. The tables below detail the recommendations for further improvement in the various governance roles:

| Area | State Council of Higher Education | Syndicate for University Governance | Board for <br> College/Institute <br> Governance |
| :---: | :---: | :---: | :---: |
| Educational <br> Character and <br> Mission | - Develop the state's educational Vision/ mission <br> - Ensure access to backward areas <br> - Reduce number of affiliations per university to below 150 colleges <br> - Explore the concept of unitary universities <br> - Not allow creation of new universities unless current ones are made functional \& facilities optimally utilized | - Develop university's educational Vision/ mission <br> - Ensure access to backward areas <br> - Introduce ProVC to focus on managing the affiliated institutions and their development <br> - Focus on developing the research character of the university <br> - Establish governance guidelines focused on research | - Develop institute's educational Vision/ mission - Control decisions about where to locate <br> - Ensure access to backward areas - Identify areas in which the institute would like to excel and gain national/ global recognition |


| Area | State Council of Higher Education | Syndicate for <br> University <br> Governance | Board for <br> College/Institute <br> Governance |
| :---: | :---: | :---: | :---: |
| Educational quality and productivity | - Advice how to improve overall quality of higher education - Review quality metrics of all state universities <br> - Review affiliation criteria to ensure that standards are evenly deployed <br> - Ensure regular assessments by UGC and NAAC. Review reports | - Review quality metrics of respective university/colleges - Apply affiliation criteria to ensure that standards are evenly deployed, revise the affiliation criteria as necessary from time to time <br> - Review the reports from various internal councils on areas pertaining to quality and performance | - Review quality metrics of the institute's processes <br> - Promote benchmarking of educational standards and processes with the best in the world. |


| Area | State Council of Higher Education | Syndicate for <br> University <br> Governance | Board for <br> College/Institute <br> Governance |
| :---: | :---: | :---: | :---: |
| Regulations | -Establish norms for regulation of private Unaided <br> Colleges/courses/staff strength/workload/fees structure/quality <br> GATTS / <br> -Foreign <br> universities/MOUs <br> -Autonomous colleges | Regulation of PG <br> Depts./colleges, <br> -Affiliation <br> -Examination, <br> -Autonomy | Regulation of college policy, process, budget, expenditure, resource mobilization, staff development |
| Innovations | Encourage patenting and IPR | Encourage patenting and IPR. Create awareness on global scenario of global Higher Education | Encourage competence building among staff and students |


| Area | State Council of Higher Education | Syndicate for University <br> Governance | Board for College/Institute Governance |
| :---: | :---: | :---: | :---: |
| Annual <br> planning and <br> budgeting | - Discuss the budget with each university and recommend same to the State Government | - Approve annual estimates of income and expenses - Ensure timely utilization of budgets, carry over | - Approve annual estimates of income and expenses - Oversee efficient use of resources - Maintain fiscal viability of the institution |
| Human resource development policies | - Define policies for the appointment, appraisal, dismissal, pay and conditions of service for the VCs - Ensure development of VC and institution heads on managing institutions | - Define policies for the appointment, appraisal, dismissal, pay and conditions of service for the institution's staff <br> - Teachers must be put on probation for 2 years before being confirmed in their services | - Implement policies for appointment, appraisal, dismissal, pay \& conditions of service for staff - The Principal of the college in nonGovt colleges should be appointed by a due process of selection as per UGC Norms for minimum period of 5 years |


| Area | State Council of Higher Education | Syndicate for <br> University <br> Governance | Board for <br> College/Institute <br> Governance |
| :---: | :---: | :---: | :---: |
| Promoting financial independence | - Encourage <br> Universities/ Colleges to maximize the generation of funds through their own initiative <br> - Review audited financial results thoroughly to assess areas where fiscal discipline can be improved | - Raise funds for University Encourage Colleges to maximize the generation of funds through their own initiative <br> - Review audited financial results thoroughly to assess areas where fiscal discipline can be improved - Assign a senior officer, who can explore how to generate funds through various sources and self financing courses | Maximize the generation of funds through their own initiative <br> - Review audited financial results thoroughly to assess areas where fiscal discipline can be improved <br> - Assign a senior officer, who can explore how to generate funds through various sources and self financing courses |


| Area | State Council of <br> Higher Education | Syndicate for <br> University <br> Governance | Board for <br> College/Institute <br> Governance |
| :---: | :---: | :---: | :---: |
| Establishing <br> Code of <br> Conduct | - Establish the code of conduct for the state's educational system <br> - Appoint external auditors to assess adherence to financial controls and prevent malpractice <br> - Institute management audits to focus on improving management practices - Establish an appellate authority to look into issues that affect individuals <br> - Establish Whistle <br> Blower Committee to <br> look into concerns that impact the entire educational system | - Appoint external auditors to assess adherence to financial controls and prevent malpractice <br> - Institute management audits to focus on improving management practices <br> - Establish a <br> Grievance <br> Redressal <br> Committee to look into issues that affect individuals <br> - Establish Whistle Blower <br> Committee to look into concerns that impact the entire educational | - Appoint external auditors to assess adherence to financial controls and prevent malpractice <br> - Institute management audits to focus on improving management practices <br> - Establish a <br> Grievance <br> Redressal <br> Committee to look into issues that affect individuals <br> - Establish Whistle <br> Blower Committee <br> to look into <br> concerns that impact the entire educational system |

a) Even though there is a 3 tiered structure, the state has an important role to play in managing the recruitment/transfer of teachers/principals to bring better efficiency as well transparency. State of Karnataka (Higher Education) must do the selection of principal and teachers as per defined criteria.. It must also make sure that frequent transfers of the institution's staff should be minimised if not eliminated. All transfers will have to be on application and against vacancies with the aim of ensuring continuity in a location for about 5-10 years for the transferred staff.
b) The state should ensure the size of the Universities is optimal in consultation with SCHE with a clearly defined plan for the next $10-15$ years.
c) The members of SCHE, Syndicate and College boards may be given adequate training. The SCHE and Syndicates should conduct public debate, workshops, brainstorming sessions to evolve policies and understand societal needs from time to time. The staff of the college and universities should be is given periodic training on pedagogical innovations, curriculum development, rules and regulations, financial and administrative matters.

### 6.4. Governance Processes

6.4. 1.Approval and decision-making: The governance bodies must implement the concept of "Single Window Clearance" so as to minimize the complexity and cycle time of decision-making. Today, the effort spent in approvals is too high and leads to multiple opportunities for delays and un-productive behavior. Each department involved in the governance and administration of the higher education system in Karnataka must develop and publish Service Level Agreements (SLAs). These Service Level Agreements provide some guarantee on the time it would take for an activity to happen and allow for an improved service culture and predictable performance based on planning.
6.4. 2 Disclosure norms and transparency: Central to the concept of governance is the aspect of ensuring transparency in management and disclosure of all facts required to assess the true performance of a university or an institution. Each university and institution must develop an Annual Report, publishing the accounts, and make it available to all stakeholders. The State Council should review all the annual reports and bring specific issues to the notice of the legislative assembly, as appropriate.

The State Council should provide feedback to universities on their performance based on the annual reports and should encourage reviews by parents and the society at large. It may be necessary to boost the PR and liaison function within the universities to ensure that these performance results are published to the society at large through the media. All the governance boards should ensure that improving transparency and disclosure is central to their charter and that they actively promote this behavior.
6.4. 3 Quarterly Governance Reviews: The State Council, the Syndicate and the Institution Boards must meet on a quarterly basis to review the performance and progress of the entire educational system, as applicable to each layer of the 3-tier governance system. Each governance board must assign a Secretary to the Board so that the decisions taken during the meetings can be minuted, tracked and appropriate action taken.

The Secretary to the State Council should always have access to the council members. The Chairperson of SCHE should have direct access to the Chancellor / Governor. This is essential to inculcate objectivity, fairness and transparency in the governance review system. Also, appropriate systems must be established to track attendance and highlight instances of absenteeism as part of the governance reviews. Lack of discipline in governance system is one of the key reasons why many governance structures fail miserably.
6.4.4 e-Governance: With the deployment of Information Technology and use of IT applications, many of the activities required to govern the educational system should be automated and moved to electronic transaction. It is recommended that the State Council of Higher Education should set up a task force that evaluates and prepares a detailed project plan for implementing e-Governance and establishing e-library in the higher educational sector of the State of Karnataka. However, with immediate effect, all the officials involved in the governance structure must be connected via e-mail and be provided 24 -hour connectivity. This improvement in communication infrastructure would go a long way in strengthening governance by bringing in transparency/efficiency. Also all the meetings of various committees must encourage use of tele-conference/video conference as an alternative to physical presence particularly for the nominated ex-officio members who would be on many such committees/councils. This will also reduce the cost of travel as well as the effective utilization of such precious senior people resources across the state.
6.5 Funding Higher Education - need to establish an Autonomous Body "Karnataka Higher Education Development Corporation"

Universities in Karnataka dealing with higher education in Arts, Social Sciences, Management and Commerce, Law and Natural Sciences are governed by the provisions of Karnataka State Universities Act, 2000. Section 4(1) of this Act lays down that a University shall have to "provide for instruction (including instruction by correspondence), teaching and training in such branches of learning and courses of study as it may think fit and make provisions for dissemination of knowledge and research". By stipulating that Universities shall have to frame Statutes, Ordinances and Regulations (duly approved by the Government) for carrying out all important programmes including fixation of fees, the State Government has apparently assumed the responsibility of providing higher education to all those students admitted to various courses of study in Universities.

It is generally felt that higher education is going to be expensive in future, especially in view of high cost of good infrastructure and retention of competent faculty. It is also known that there are two categories of students in terms of economic strength, viz., those who can afford to pay and others who cannot afford to pay the rising cost of higher education. The second category not only includes students of SC/ST/OBC groups but also those of economically weaker sections otherwise coming under forward groups.
6.6 The policy of the Government on equity, accessibility and social justice is rather well understood. The question is whether or not the government of the day (regardless of party affiliation) is ever in a position to subsidize higher education, and if yes, to what extent and for how long? Therefore, it is advisable go examine the following suggestions:
a) To spell out the long-term strategy on higher education in respect of funding.
b) To promote a suitable autonomous financial institution to establish and operate a separate funding scheme under the auspices of "Karnataka Higher Education Development Corporation" (KHEDCO).

Whereas the report of the Task Force should enable the Government for the first exercise, a short Appendix of this note with additional inputs from financial specialists should operationalise the second suggestion.

The "KHEDCO" not only envisages student financing but also institutional funding. It should be emphasized in this context that mere provision of pursuing
higher education with liberal financial assistance from the State will not empower students with the requisite skill and knowledge unless and until they rigorously undergo a teaching-learning-training regimen at institutions of high infrastructural facilities. Hence, institutional financing is as an important as individual financing. In this regard, the present proposal is different from the recommendation of Navaneetha Rao Committee (1993), which opined that "the financial assistance be made available, either from public funds or from the Banks, in the form of a loan to all meritorious students".

To sum up novelty, creativity and innovation with accountability and transparency are the hallmarks of good governance.

## 6. I. Appendix

## Karnataka Higher Education Development Corporation (KHEDCO)

(To be established with a corpus of Rs. 200 to Rs. 300 crores)

## A. Major Objectives

Lending financial support to students pursuing University Courses of Study and to Colleges and Universities desirous of setting up modern facilities for teaching and training.

## B. Nature of Lending

i. A maximum of Rs. $75,000 /-$ per year for First Degree Course (relaxable under special conditions).
ii. Maximum of Rs.1,00,000/- per year for Postgraduate Studies (relaxable under special conditions).
iii. Loans are to be given to low-income groups regardless of caste/ community/ religious criteria.
iv. Differential Rate of Interest (D.R.I.) could be levied.
v. The loans sanctioned shall cover the full tuition fee, laboratory fees and maintenance expenses as certified by the competent authority.
vi. Continuation of the loan shall depend on the satisfactory progress / performance of candidates (obtaining first class or high second class or equivalent grade in Annual / Semester Examination at the discretion of the sanctioning
authority).
vii. The repayment shall start within one year from the date of appointment when the annual income exceeds Rs.50,000/-. The loan with interest shall be fully repaid within ten years thereafter.

## C. Rate of Interest* (Simple): Student Loans

| Low income group | $2 \%$ interest per annum in cases <br> where the parental income is less <br> than Rs.12,000/- per annum. |
| :--- | :--- |
| Middle income group | $4 \%$ interest per annum in cases <br> where the parental incomes <br> between Rs.15,000/- to Rs.1.00 <br> lakh. |
| Other groups | $6 \%$ interest per annum where the <br> parental income is above Rs.1.00 <br> lakh per annum. |

## D. Financial Support to Colleges and Universities

i. Soft loans to Colleges to establish new facilities and the rate of interest shall be less than that levied by the Commercial Banks.
ii. Soft loans to Universities / Deemed Universities and Autonomous Colleges
to facilitate establishment of New Centres / Programmes of high quality learning and training.

Woman and physically handicapped students from all groups shall be eligible for a special rebate of $1 \%$ interest.

## E. Security

Collateral / Property / Life Insurance / or any other acceptable / feasible norms

## F. Resource Mobilization

The Government could have deposits from NRIs, bonds, levy education cess and add a one-time lump sum grant. Alternatively or additionally a higher education fund could be created through monthly contribution of members who would like to utilize the facility for financing education of their wards.

## Note:

1. The structural organization and the functional features of the proposed Corporation shall have to be defined after due consultation with Banking Experts / Financial Managers / Institution Builders.
2. This is only a proposal but not a comprehensive policy document.

## PREAMBLE:

The Higher Education has become highly significant and competitive in the context of W.T.O. and Globalization. Quality and Excellence have become watchwords in order to remain at the edge of fast expanding knowledge. To fulfill these, Universities and Colleges, the seats of the Higher Education have to function more efficiently and in the missionoriented mode to deliver the goods to become successful knowledge based society. We need a structure for Higher Education, which is governed amongst other things by the Karnataka State Universities Act, to achieve these ends. Hence, the following changes are proposed to provide for a framework that establishes adequate autonomy, in the system and supports excellence in various areas.

The suggested changes are indicated below:

| Section as it exists |  | Section as amended | Remarks |
| :--- | :--- | :--- | :--- |
| Sec. 4: Powers of | Powers of the University:- |  |  |
| University:- | Subject to the provisions of this Act |  |  |
| Subject to the provisions of this | and such conditions as may be |  |  |
| Act and such conditions as may | prescribed by the Statutes or |  |  |
| be prescribed by the Statutes or | Ordinances, the University shall have |  |  |
| Ordinances, the University shall | following powers and shall perform |  |  |
| have following powers and shall | the following duties, namely:- |  |  |
| perform the following duties, |  |  |  |
| namely:- | (i) to provide for instruction (including |  |  |
| (i) to provide for instruction | distance education programme by |  |  |
| (including instruction by | correspondence), teaching and training |  |  |
| correspondence), teaching and | in such branches of learning and |  |  |
| training in such branches of | courses of study as it may think fit and |  |  |


| learning and courses of study as it may think fit and make provisions for dissemination of knowledge and research. | make provisions for dissemination of knowledge and for conduct of research. |  |
| :---: | :---: | :---: |
| Sec. 4 (xvii) : to organize, encourage, regulate and control University Unions and Associations pertaining to the students or the employees; | To recognize, University Unions and Associations pertaining to the students or the employees; |  |
| Sec. 4 (xx)(b) : <br> to make grants from the funds of the University for:- <br> a) Physical training; <br> b) Student's Unions; and <br> c) Sports and athletic clubs | to make grants from the funds of the University for:- <br> a) Physical training; <br> b) Student's Associations; and <br> c) Sports and athletic clubs |  |
| Sec. (7): | ADD: New Section (4): The Teachers shall conduct and guide research with funding from University and other funding agencies, so as to keep abreast of knowledge. |  |
| Sec. 10: Power to annul the orders the orders of the University: <br> (1) The State Government may by order published in the official Gazette annul any order, notification, resolution or any proceedings of the University which in its opinion is not in conformity with the provisions | The State Government may by order published in the official Gazette annual any order, notification, resolution or any proceedings of the University which in its opinion is not in conformity with the provisions of this Act, or Statutes or Ordinances, Regulations, or Ordinances. | It is difficult to unambiguously define policy of the State Government, because the parties that head the Govt., change and this could create a situation, which can be un-academic and interfering. Hence, policy of the State Govt. is |


| of this Act, or the Statutes, Regulations, or Ordinances or is otherwise inconsistent with the policy of the State Government. <br> Provided that before making such order, the State Government shall afford an opportunity to the University. | Provided that before making such order, the State Government shall afford an opportunity to the University. | deleted. <br> However, there are other Clauses, which guarantee compliance with well stated/formulated Govt. Orders/Policies. |
| :---: | :---: | :---: |
| Sec. 14(2): The State <br> Government shall constitute a Search Committee consisting of four persons of whom, one shall be nominated by the Chancellor, one by the University Grants Commission, one by the State Government and one by the Syndicate. The State Government shall appoint one of the members as the Chairman of the Committee. The Secretary to Government in-charge of higher education or his nominee not below the rank of the Deputy Secretary to Government shall be the convener of the Search Committee. | The Chancellor shall constitute a Search Committee consisting of three persons of whom; one shall be nominated by the Chief Justice of Karnataka, one by the University Grants Commission, and one by the Syndicate. The Chancellor shall appoint one of the members as the Chairman of the Committee. The nominated member should be eminent public figures in the fields of Industry, Education, Service or Arts and be non-political. One of the three members shall be a woman. The Chancellor's office will co-ordinate meetings. The Committee may interact with the short-listed members. | When the State <br> Governments are involved, there is every likelihood of politicizing position of the Vice-Chancellor and to that extent weakening the ability of the ViceChancellor to function. Therefore, it is desired to free the Vice-Chancellor from a feeling of political obligation and function with freedom for sound, academic decisions. |


| Sec. 14(4): The Search Committee shall submit to the State Government a panel of three persons, who are eminent academicians, in the alphabetical order. The State Government shall forward the panel to the Chancellor who shall keeping in view merit, equity and social justice and with the concurrence of the State Government, appoint one person from the panel as the Vice-Chancellor. <br> Provided that, the Chancellor may with the concurrence of the State Government call for a second panel if he considers it necessary and the Search Committee shall submit a second panel which shall be final. | The Search Committee shall submit to the Chancellor a panel of three persons, who are eminent academicians, in the alphabetical order. The Chancellor shall keeping in view merit, equity and social justice, appoint one person from the panel as the Vice-Chancellor. <br> Provided that, the Chancellor may call for a second panel if he considers it necessary and the Search Committee shall submit a second panel, which shall be final. | When the State Governments are involved, there is every likelihood of politicizing position of the Vice-Chancellor and to that extent weakening the ability of the ViceChancellor to function. Therefore, it is desired to free the Vice-Chancellor from a feeling of political obligation and function with freedom for sound, academic decisions. |
| :---: | :---: | :---: |
| Sec. 14(7): The Vice-Chancellor shall not be removed from his office except by an order of the Chancellor passed on the ground of wilful omission or refusal to carry out the provisions of this Act or for abuse of the powers vested in him and on the advice tendered by the State Government on | The Vice-Chancellor shall not be removed from his office except by an order of the Chancellor passed on the ground of wilful omission or refusal to carry out the provisions of this Act or for abuse of the powers vested in him and on consideration of the report of an inquiry ordered by him under sub- | Appointment of an Inquiry Committee on flimsy grounds can happen in the political system to malign the Vice-Chancellor through media and this could create a situation not conducive to academic |


| consideration of the report of an inquiry |
| :--- |
| ordered by it under sub-section |
| (8). |
| section (8). |
|  |


| time scale to be the Registrar of a University. | State Government/Vice-Chancellor to be the Registrar. | to feel, that his talents are underutilized and this can lead to reduction of interest in his functioning in the University. It is desirable to have the Registrar appointed by the Syndicate, so that there will be a good team work of ViceChancellor and his Officers and Syndicate. |
| :---: | :---: | :---: |
| Sec. 18(1): The Registrar (Evaluation) shall be a whole time Officer of the University. The State Government may appoint an Officer of the Karnataka Administrative Service, not below the rank of Group-A senior scale or a senior member of the Faculty of any University to be the Registrar (Evaluation) of a University. <br> Provided that where no such person is available then the Registrar (Evaluation) shall be appointed by the ViceChancellor with the approval of the Syndicate from out of a panel of not less than three persons recommended by the Vice- | The Registrar (Evaluation) shall be a whole time Officer of the University. The Syndicate shall appoint from a panel obtained by the Government or from the Vice-chancellor, an Officer of the Karnataka Administrative Service, not below the rank of GroupA senior scale or a senior member of the Faculty of any University to be the Registrar (Evaluation) of a University. <br> Provided that where no such person is available then the Registrar (Evaluation) shall be appointed by the Vice-Chancellor with the approval of the Syndicate from out of a panel of not less than three persons recommended by the Vice-Chancellor. If none of the persons in the panel is approved by the Syndicate within the time prescribed by the Statutes, the | Appointment by the Syndicate is desirable for reasons similar to Registrar's Appointment. |


| Chancellor. If one of the persons in the panel is approved by the Syndicate within the time prescribed by the Statutes, the Chancellor may, in consultation with the Vice-Chancellor appoint such other person as he deems fit to be the Registrar (Evaluation). The terms and conditions of service and emoluments of the Registrar (Evaluation) so appointed shall be such as may be determined by the Chancellor. | Chancellor may, in consultation with the Vice-Chancellor appoint such other person as he deems fit to be the Registrar (Evaluation). The terms and conditions of service and emoluments of the Registrar (Evaluation) so appointed shall be such as may be determined by the Chancellor. |  |
| :---: | :---: | :---: |
| 19(3) | Registrar to be Deleted |  |
| Sec. 28(1): The Syndicate shall consist of the following Members, namely:- <br> (i) The Director of Medical Education or his nominee not below the rank of Joint Director; | - Clause to be Deleted - | Medical Faculty is no longer in any University. |


| Sec. 28(1)(k): The Director of Pre-University Education or his nominee not below the rank of Joint Director. | - Clause to be Deleted - | Pre-University Education is not a part of University Education. |
| :---: | :---: | :---: |
| Sec. 28(h): One person who is a Professor of Post-Graduate Studies nominated by the ViceChancellor with approval of State Government for a period of one year by rotation in the order of seniority. | Two persons who are Professors of Post-Graduate Studies nominated by the Vice-Chancellor for a period of one year by rotation from different subjects. in the order of seniority. | The representation given to University Professors should be adequate to provide good academic contribution for decision making. |
| Sec. 28(r): Add | To recommend medals, fellowship etc. |  |
| Sec. 29: | Add: Sec. 29(h)(1) to prepare Annual Report of the University and submit the same to the Academic Council. | It is necessary to have the Annual Report, so that the Syndicate not only looks at the performance, but also can use it as basis for evaluation and for planning future progress. There is a provision for this under Sec. 50. This is brought in here for completeness. |
| Sec. 30(iv) Academic Council: <br> One member of the Karnataka <br> Legislative Assembly in respect <br> of each district falling within the <br> University area, nominated by <br> the Speaker Karnataka | Two members of Legislative Assembly and a member of Legislative Council to be nominated by the speaker. |  |


| Legislative Assembly. |  |  |
| :---: | :---: | :---: |
| Sec. 30 (viii): Five Professors of the department of the University nominated by the ViceChancellor, by rotation in the order of seniority each for a term of two years. | Ten Professors of the Dept. of the University nominated by the ViceChancellor by rotation in order to seniority for three years. The Professor should be chosen one each from a Dept., keeping in view the seniority | This will provide better academic input for decisions to be taken in Academic Council. |
| Sec. 31 (xxi): | To consider the Annual Report of the University. | This is necessary to keep track of progress of the University. <br> It is provided for in Sec. 50. Here, it is included for completeness. |
| Sec. 34(2): Each Faculty shall consist of such number of Departments of Studies as may be assigned to it by the Ordinance. | Each Faculty shall include those Departments of Studies as may be assigned to it by the Ordinance. | - |
| Sec. 34(3)(v): persons appointed to conduct Research in the Department. | Persons appointed at the level equivalent to Lecturers to conduct Research in the Department. |  |
| Sec. 34 (6): Each Department of Studies shall have a Departmental Council consisting of:- <br> a) all the Professors and Readers; <br> b) the Registrar (Evaluation); | Each Department of Studies shall have a Departmental Council consisting of:- <br> a) all the Professors Readers, and Lecturers; <br> b) the Registrar (Evaluation); and Lecturers | The present arrangement deprives the other lecturers' participation in the departmental affairs. |


| c) two senior most Lecturers in the Department. |  |  |
| :---: | :---: | :---: |
| Sec. 35(2)(h): two representatives from Industry and Trade ordinarily residing within the University area nominated by the State Government for a term of two years; | two eminent persons from Industry, Education, NGO and Trade ordinarily residing within the University area nominated by the State Government for a term of two years; |  |
| Sec. 35 (2) (d): two senior most Deans of the Faculties by rotation for a period of one year as recommended by the ViceChancellor; | two senior most Deans of the Faculties by rotation for a period of one year as nominated by the Vice-Chancellor; | - |
| Sec. 35(2)(e): two senior most Professors of whom one shall be from Science and Technology and the other from Humanities and Social Sciences nominated by the Vice-Chancellor, for a term of two years; | Three senior most professors of whom one shall be from Science \& Technology, one from Humanities and Social Sciences and one from the remaining faculties nominated by the Vice-Chancellor on rotation for a term of two years; | This is to provide for representation to all faculties, so that Planning and Monitoring can be more undertaken. |
| Sec. 35(2)(f): one expert who is an educationist with rich experience of teaching and Research and educational administration nominated by the State Government for a term of two years; | One eminent educationist with rich experience of teaching and research and educational administration nominated by the Chancellor for a term of two years. | It would be expedient to make the nomination. If necessary, <br> Vice- <br> Chancellor/Government may be consulted. |
| Sec. 35(2)(h): two | two leaders of Industry and Trade | It would be expedient to |


| representatives from Industry and Trade ordinarily residing within the University area nominated by the State <br> Government for a term of two years; | ordinarily residing within the University area nominated by the Chancellor for a term of two years; | make the nomination. If necessary, ViceChancellor/Government may be consulted. |
| :---: | :---: | :---: |
| 35(3) | (3) The Planning, Monitoring and Evaluation Board shall meet atleast once in three months. The board shall review the performance of existing courses and suggest mechanism for making programme relevant and also to suggest new courses that meet the demands of developing knowledge and skils. Every resolution of the Planning, Monitoring and Evaluation Board shall be placed before the Academic council and Syndicate for consideration and taking action thereon . |  |
| Sec. 35(4): New Section to be added. | Sec. 35(4): Director-Planning, Monitoring, Evaluation \& Evaluation Board, shall be Member-Secretary. | For efficient functioning of the Board, the Director, who is the Statutory Officer should be MemberSecretary. |
| Sec. 37(1): Other Boards: <br> (1) The University may establish such other Boards as may be prescribed by Statutes from time to time. | (1) The University may establish Research and Development Board to encourage and coordinate innovative research and to develop university - industry - National <br> laboratory - Society interactions |  |


|  | and may establish such other <br> Boards as may be prescribed by <br> Statutes from time to time. |  |
| :---: | :---: | :---: |
| Sec. 39 (4): Save as otherwise provided in this Act, no person who is not a graduate of any University established by law shall be eligible for nomination as a member of any of the authorities under this Act. | Save as otherwise provided in this Act, no person who is not a graduate of any University established by law shall be eligible for nomination as a member of any of the authorities under this Act. <br> Provided, this is not a sufficient condition for nomination under eminent educationists for nomination to Syndicate, Academic Council and other bodies. <br> Provided that the nominations to the university statutory bodies shall be made from the short listed eminent educationists in the ratio of 1:3 by the expert committee to be constituted by the State council of higher education | Number of nominations have taken place without any eminence in the field except that the nominees are graduates. In order to avoid this, this clarification is incorporated. |
| Sec. 42 (2): No Ordinance shall be made for amending any of the Regulations or the Statutes in force. | No ordinance shall be made for amending any of the statutes in force. | Since regulations refer to only academic matters, it is not necessary for regulations to be superior to ordinance. |
| Sec. 44 (2): All regulations passed by the Academic Council shall be sent to the State Government for submission to | All regulations approved by the Academic Council shall be sent to the Chancellor for his information. If he directs in $2 / 4$ weeks' time that, it be | Since regulations deal with matters, of admissions of students, recognition of degrees, equivalence of |


| the Chancellor for approval. The State Government shall transmit the regulations within two months from the date of receipt thereof from the University to the Chancellor with its comments. The Chancellor may within one month of the date of receipt of the regulations from the State Government either approve them or refer them to the Academic Council for further consideration. | suspended or if he seeks clarification, it shall be provided by the Academic Council. Otherwise, the regulation will come into operation from the date of Academic Council may direct. | University courses and exams, it is unnecessarily delaying the process of decision-making and is in no way productive for the Government. regulations need to be made consistent of Act, Statutes and Ordinances. Hence, there is no need for additional control that would be counterproductive. |
| :---: | :---: | :---: |
| Sec. 53(7): The Board shall prepare a list of persons selected and arranged in the order of merit, the merit being determined on the basis of percentage of mark is obtained in the qualifying examinations, weightage awarded for the higher qualification and the marks secured in the interview. <br> The select list shall be forwarded to the Syndicate which shall consider and approve the same. Thereafter the Syndicate shall make appointments by operating the select list from among the candidates selected and arranged in the order of merit; | The Board shall prepare a list of persons selected and arranged in the order of merit, the merit being determined on the basis of percentage of mark obtained in the qualifying examinations, weightage awarded for the higher qualification and the marks secured in the interview. The select <br> list shall be forwarded to the Syndicate which shall consider and approve the same. Thereafter the <br> Syndicate shall make appointments by operating the select list from among the candidates selected and arranged in the order of merit; <br> Provided that in case of difference of opinion between the Syndicate and the Board of Appointment and where it is of the opinion that the |  |


| Provided that in case of difference of opinion between the Syndicate and the Board of Appointment and where it is of the opinion that the list does not satisfy the provisions of the Act or Statutes or the guidelines issued from time to time by the University grants Commission or All India Council for Technical Education or National Council for Teacher Education or similar statutory authorities, it shall refer the matter back to the Board for fresh interview and selection: <br> Provided further that the State Government may suo motu take cognisance of the difference between the Board and the Syndicate and shall decide the matter, which shall be final. | list does not satisfy the provisions of the Act or Statutes or the guidelines issued from time to time by the University Grants Commission or All India Council for Technical Education or National Council for Teacher Education or similar statutory authorities, it shall refer the matter back to the Board for fresh interview and selection: <br> Provided further that the Chancellor may suo motu take cognisance of the difference between the Board and the Syndicate and shall decide the matter, which shall be final. |  |
| :---: | :---: | :---: |
| Sec. 55 : Appointment to parttime posts:- <br> 1) There shall be a Board of Appointment for selecting persons for appointment as parttime Lecturers, Assistant Professors, Readers and Professor in the University. The Board | Appointment to part-time posts:- <br> 1) There shall be a Board of Appointment for selecting persons for appointment as part-ime Lecturers, Assistant Professors, Readers and Professor in the University. The Board shall consist of:- | This being part time arrangement, a large committee would take time and is not desirable. |



| Karnataka and the Secreta Government of Karn Department of Parliam affairs and Legislation. | ry to rank of Deputy Sec <br> taka, <br>  Provided that, due representa <br> reserved categories whenever <br> areavailable. | is given to <br> fied persons |
| :---: | :---: | :---: |
| Sec.58: Not withstanding anything contained in any contract, agreement or in any other law for the time being in force and the conditions of service applicable to the employees of the University, the Chancellor in consultation with the State Goverrment may for administrative reasons transfer any employee holding any post in the University to any other <br> University established under this Act or Under any law made by the <br> State Legislature for the time being in force and the employee so transferred shall carry with him such conditions of service as may be specified in the order of transfer. Such employee shall on transfer be deemed to have been appointed by the competent authority of the University. <br> Provided that, an employee so transferred shall have an option to retain his lien in the University in which he was initially | Not withstanding anything contained in any contract, agreement or in any other law for the time being in force and the conditions of service applicable to the employees of the University, the Chancellor in consultation with the State Govemment and concerned Vice-Chancellors may for administrative reasons transfer any employee holding any post in the University to any other University established under this Act or Under any law made by the State Legislature for the time being in force and the employee so transferred shall carry with him such conditions of service as may be specified in the order of transfer. Such employee shall on transfer be deemed to have been appointed by the competent authority of the University. <br> Provided that, the transfer shall not affect adversely any research projects the teacher may have. <br> Provided that, an employee so transferred shall have an option to retain his lien in the | It is necessary to know whether such a transfer will affect any research or teaching programme that is being conducted in the Universities before transfer. |


| appointed or for absorption in the University to which he is transferred. | University in which he was initially appointed or for absorption in the University to which he is transferred. |
| :---: | :---: |
| (2) For the purpose of ordering such transfer of employees under subsection (1) the Chancellor shall be deemed to be the appointing Authority in respect of posts held by the employees so transferred. | (2) For the purpose of ordering such transfer of employees under sub-section (1) the Chancellor shall be deemed to be the appointing Authority in respect of posts held by the employees so transferred. |
| (3) The employee so transferred shall be eligible to Travelling Allowance, | (3) The employee so transferred shall be eligible to Travelling Allowance, Transfer |
| Transfer Grants and cost of transportation of personal effects as admissible to the employees of the State Civil | Grants and cost of transportation of personal effects as admissible to the employees of the State Civil |
| Service at the scales applicable to the corresponding posts. | Service at the scales applicable to the corresponding posts. |
| (4) The seniority of an employee so transferred in public interest and who has | (4) The seniority of an employee so transferred in public interest and who has not opted to retain his lien in the |
| not opted to retain his lien | University in which he was |
| in the University in which | appointed shall be determined |
| he was appointed shall be | with reference to the date of his |
| determined with reference | initial appointment in the |
| to the date of his initial appointment in the | respective cadre or post |


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| :---: | :---: | :---: |
| Sec. 59 (6): On receipt of <br> application under sub- <br> section (2), it shall be <br> placed before the Syndicate <br> for consideration. The <br> Syndicate on consideration <br> of each of the applications <br> for affiliation shall direct a local inquiry to be made by <br> a local inquiry committee: <br> Provided that the local inquiry committee shall consist of at least one person belonging to the Scheduled Castes or the Scheduled Tribes. | On receipt of application under sub-section (2), it shall be placed before the Syndicate for consideration. The Syndicate on consideration of each of the applications for affiliation shall direct a local inquiry to be made by a local inquiry committee: <br> Provided that the local inquiry committee shall consist of at least one person belonging to the Scheduled Castes or the Scheduled Tribes. <br> Provided further that, a Dean or Senior Professor of the concerned faculty shall be the Chairman of the Committee. <br> Provided further that, a nominee of the State Government on the Academic Council may be designated by the Govt. to be Member of Local Inquiry Committee. | It is necessary to have the Academic person as a Chairman of the Inquiry Committee to provide inputs and the practice of having Syndicate Member as and the Chairman, of Local Inquiry Committee, may not be desirable, as the Syndicate has to give its opinion on the Report of the Inquiry Committee. <br> With a Govt. nominee on the Inquiry Committee, it should not be necessary for the State Government to appoint another Inquiry Committee, as it is done under provisions of Sec. 59(11) of the present Act and it will be unnecessary drain on Govt. resources and academically not fruitful. |


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| :---: | :---: | :--- |
| Sec, $\mathbf{6 4}$ (1) | Sec. 64(1) conferment of autonomy <br> shall not affect the grant in aid Grant | Autonomous Status is <br> granted to the College <br> only, if the Government |
|  |  | agrees to continue to give |

( $\quad |$| grant. Therefore, it is |
| :--- |
| necessary that the grants |
| be continued and also it |
| is necessary to help |
| maintain quality in higher |
| education. |

Sec. 72: Karnataka State Inter-University Board:- (1) Notwithstanding anything contained in any other Law for the time being in force, there shall be an InterUniversity Board for the State of Karnataka called "The Karnataka State InterUniversity Board" consisting of the following members:-
a) The Minister incharge of Higher Education - Chairman.
b) The Vice-Chancellors of all the Universities in the State.
c) The Secretary to Government incharge of Higher Education-Member Secretary.
d) The Secretary to Government, incharge of Finance Department.
e) The Secretary to Government, incharge of Agriculture and Horticulture Department.
f) The Secretary to Government Planning Department.
g) The Secretary to Government, Health and Family Welfare Department incharge of Medical Education.
h) The Secretary to Government Social Welfare Department.
i) The Commissioner for Collegiate Education.
j) The Director of Technical Education.
k) The Commissioner for Public Instruction.

1) The Director of Medical Education.
m) The Director of Pre-University Education.
(2) The Board shall meet as often as necessary, but atleast once in three months. It may invite such other persons as may be required to assist its deliberations.
(3) The Quorum for the meetings of the Board shall be eight.
(4) The functions of the Board shall include:
(a) co-ordinating development of academic facilities, specializations and standards;
(b) co-ordinating matters affecting students such as eligibility for admissions, mobility, examinations and the like;
(c) studying the finances of Universities as well as the administrative problems of universities; and
(d) acting as a Co-ordinating agency for the financial programme of the Universities funded by the University Grants Commission, and by the State Government respectively.
(5) The recommendations, the resolutions or the decisions of the Board shall subject to the approval of the State Government be binding on the Universities in the State and shall be implemented forthwith, and a compliance report thereof shall be sent to the Member Secretary within two months.
(6) The Board shall review from time to time whether the orders issued by the State Government for reservation of posts appointments or for Scheduled Castes and Scheduled Tribes and Other Backward Classes has been followed in the direct recruitment and it is followed in promotion in respect of persons belonging to the Scheduled Castes or the Scheduled Tribes and make such specific recommendations if any, for compliance by the Universities in the State.

The constitution of the Karnataka state Inter-University Board (KSIUB) has given representation to all the Vice-Chancellors, Secretaries of the Govt. Depts and Directors of the Govt. to make recommendations to the Government on matters affecting every aspect of University functioning and its recommendations, if approved by the Govt., are binding on all the Universities for implementation. KSIUB has a special responsibility to look after reservations of various categories in appointments and promotions in the Universities (6 above). The Chairman of the Board is the Minister for Higher Education.

The Inter-University Board has been constituted with representation from every Government Agency connected with University affairs in addition to vice chancellors and is headed by the Education Minister and is given powers to act as a Co-coordinating Agency. However the IUB has no representation of independent educationists, distinguished persons and representatives of business and industry. The IUB by its very nature is another Government Body which is too large (25-Members) to arrive at sound decisions promptly. Also there is no mechanism for effective follow-up; nor is there any institutionalized long-term planning agency. Therefore, it is suggested that, State Council of Higher Education on the guidelines of UGC be established to provide efficient leadership to higher education in the State.

# Implementing Quality in Higher Education in the State Of Karnataka 

## Create constancy of purpose towards improvement ${ }^{6}$

Any result focused quality movement is a journey, a continuum. It is not an ad hoc initiative, but is a fabric of planned actions threaded together over time. Such efforts must have long tenures and continuity, beyond specific individuals, policy makers and administrators. It is critical to success that the quality movement in the Higher Education Sector of Karnataka must be a multi-generation continuous program, irrespective of the changes in governments, administration and management.

Also, improvement cannot yield results if it is focused on any single aspect of the overall system. Quality is systemic and requires an integrated holistic view and multi-pronged action orientation. As evident today, pockets of excellence neither have the resilience to last nor a scalable impact to show respectable results at the state level. Without strong ownership of quality processes or accountability for results, the innumerable ideas generated never see the light of the day.

### 8.1. Background and Current Status

Quality in higher education is a much discussed subject. Seminars, workshops and academic forums have deliberated the rapidly growing importance of quality in the collegiate educational system and proved the rationale for a focused effort in this direction. It is selfevident that improving the quality of higher educational system to world-class levels is key to the overall development of Karnataka.

With the intention of inspiring action on the ground, various committees and task force groups have genuinely and comprehensively discussed this subject to make actionable recommendations on how educational quality can be improved. Leaders in the educational systems at the Karnataka state, university and institution level have mobilized several initiatives focused on improving the standards of education. However, further analysis of

[^4]these initiatives highlights the areas where we need to reinforce the quality movement. The quality initiatives so far have focused on:

1. Assessing the state of affairs (using criteria from NAAC, NBA and ISO.): As of May 2004. NAAC had assessed 8 universities and 146 colleges in Karnataka. These assessments are vital to identify status and areas for improvement that initiate change towards meeting better standards. However, results would be better achieved if this is backed up with a structured post-assessment quality improvement program to reinforce the actions on findings. How to ensure the scalability of the assessments and the action planning process are areas for action, considering that many colleges need to be covered.
2. Training management / faculty / staff in concepts of TQM: Spreading awareness on concepts of quality is a very important step in the journey. The concepts of quality have been extensively propagated through TQM trainings by the State Commissionerate of Collegiate Education (CCE). As of June 2003, 302 colleges had been covered touching thousands of educationists, students and management representatives. Going forward, a quality framework in which this training can be applied in real environment would improve the probability of achieving results from this effort. This may also reduce the risk of disillusionment about the success of Quality initiatives amongst those trained!
3. Developing quality task force at state, district and taluka level: These structures are critical to develop accountability and momentum across the state. The formation of such structures by the TQM and HRD initiatives of the State Commissionerate of Collegiate Education (CCE) is a step in this direction. Going forward, the implementation of structured quality management processes that can be used by such task forces and the institutions under them would improve the focus on quality improvement related activities and reduce the relatively overwhelming concentration on only administrative and infrastructure issues.
4. Voluntary quality programs by the leadership of individual institutions: The quality programs initiated voluntarily by some of the leading institutions have demonstrated good success. More importantly, the focus now has to be on increasing the number of such models / pilots that can prove that the success is scalable. Approaches to learn from these examples and abstract the same for sharing across all other institutions would go a long way in strengthening the quality movement in the state. This would also reduce the risk of demise of individual quality movements due to lack of practical knowledge about implementation aspects.

There is an ever increasing need to debate how effective these initiatives would be in changing the ground realities for "The Students", the primary beneficiaries of the quality movement. A key point to highlight, based on learning from educational quality movement world wide, is that those programs that ensure student interest as the focal point have shown significantly better results.
As we debate the actions required to improve the effectiveness of our quality programs, we must recognize the magnitude and complexity of challenges. While our educational system has gained world-wide recognition for its extensive permeation and scale, we must ensure that we do not pay the price by compromising its flexibility and agility. Given the size and complexity, it would take extra-ordinary leadership, commitment and perseverance to bring about any perceivable change.

There is a need to develop a ground up and wide-spread quality improvement program characterized by simple, yet very strong, fundamentals. Such a program should be:

1. Action oriented, that improves quality as perceived by students and faculty.
2. Adaptable and containing, with all elements required for rapid deployment across the state to handle the future growth.
3. Exciting, with multiple strategies to motivate all stakeholders, specially the leadership

This paper focuses on outlining the key elements of such a "Quality Management Program", which may be considered for state-wide deployment. However, individual universities and institutions may improve upon the same in the context of their specific emerging needs.

### 8.2. Recommended Areas for Improvement

"The devil is in the details" and hence we need to take cognizance of key issues that are likely to influence the success of educational quality improvement initiatives in Karnataka. While there may be many aspects to be addressed to take educational quality to world-class levels, in the interest of retaining a sharp focus and keeping the approach simple, we have presented the key aspects for immediate action as below:

- Establish clear 5 year goals for educational quality improvement in Karnataka. This should be expressed through metrics and be jointly owned by the State Council for Higher Education.
- Set up a quality management structure, at the university and college levels, with clear responsibility and accountability for managing quality improvement initiatives.
- Set up processes to develop and review time bound action plans for quality improvement at the university and college level. This must include how these actions would be resourced.
- Formalize the basic processes of teaching and learning across the institutions in Karnataka. Increase focus on non-class room interventions.
- Establish processes to develop the faculty in core competency areas. Define developmental goals and improve the accountability for competency development.
- Set up an IT enabled system to develop and manage a widely accessible knowledge base of best-in-class educational practices and course ware.
- Invest in databases on educational performance and quality parameters. Improve the use of IT in analyzing progress towards improving the standards of educational quality.

An action plan that focuses on addressing the above issues in a scalable manner across the state has the potential to demonstrate visible improvement in the quality of education. This paper focuses on recommending such an action plan.

### 8.3. Educational Quality Improvement Program (EQUIP)

### 8.3.1 Quality Excellence Goals

a) As a first step a "State Council of Higher Education" must be formed with educationists, whose prime responsibility should be to maintain constancy of purpose. The continuity of this council across governments and other such changes must be ensured. The council must address the needs of all the stakeholders in the higher education system.
b) State Council for Higher Education should consent to 5 year specific and measurable goals (metrics) to improve quality of higher education in the State. These goals (metrics) should focus on (1) Student focus (2) Teaching / learning improvement (3) Faculty development.
c) These specific goals (metrics) should be established annually for each university and the institutions affiliated to them. The specific targets at respective university and institution levels must be defined by them based on their individual levels of quality maturity.
d) Based on the learning from institutions that have won the prestigious Malcolm Baldrige Award, USA, the following goals (metrics) are illustrated as best practices.

| Sr. | Area For Quality Focus | Illustrative Metrics |
| :---: | :--- | :--- |
|  |  |  |
| 1 | Student Focus | Student grades |


|  |  |  | Student placement rates <br> Survey to assess student engagement <br> Alumni satisfaction |
| :--- | :--- | :--- | :--- |
| 2 | Teaching <br> Improvements | Learning | Employer satisfaction <br> $\%$ Graduates prepared for employment <br> $\% \quad$ Courses using non-classroom <br> methods <br> No. of knowledge assets created |
| 3 | Faculty Development | Days of faculty training |  |
| Student satisfaction with academics |  |  |  |
| Faculty and staff satisfaction |  |  |  |
| Average faculty attendance |  |  |  |
| Research / Extension / Consultancy |  |  |  |

e)To begin the EQUIP, a pilot of 1 institution per district or selected 20 institutions should be taken up to demonstrate the success of the quality program. These institutions should be guided by select quality professionals from academia, industry and services.

### 8.3.2 Quality Management Structure

a) At the state level, the State Council for Higher Education should assume the role of Quality Steering Team. They should steer the quality movement towards the goals defined above.
b) To manage execution of actions, a dedicated Quality Manager (QM) from among the senior academicians should be recruited under respective Vice-Chancellors. This QM should be selected jointly by all the Heads of The Departments and should be acceptable as a leader by them.
c) The QM should be accountable for managing the quality program of the university through a Quality Steering Team (QST). This QST could as well be the council of all Heads of the Departments, or a subset as the University may deem fit.
d) A similar structure of QM and QST should be replicated at the institution level under the Head of the Institution. The QM should be the guardian of the institute's quality system and should manage the initiatives, processes and data analysis to track the quality progress.
e) To develop the role of Quality Manager and build their competency on managing EQUIP, the QMs from pilot institutions should be extensively trained on quality management by State Council for Higher Education. This should include aspects pertaining to improving the quality of administration also.
f) At the state level, a Higher Education Research team, accountable to the Council for Higher Education, should be setup with the charter to identify best practices worldwide, contextualize to the Indian environment and deploy across all the institutions.
g) It is strongly recommended that institution level quality structure should include bright and enthusiastic students (selected annually based on merit), who provide very valuable inputs to assess if the quality program is translating into student benefits. Quality scholarships should be setup to attract the best and the brightest students to take this responsibility.
h) At intervals of 3 months, the State Council for Higher Education should meet to assess the quality progress. An annual statewide Educational Quality Summit must be held with all Quality Managers to share progress, best-practices and reinforce the momentum.
i) Administrative, finance and managerial processes and people also need to be focused, so that the quality is addressed in holistic way

### 8.3.3 Annual Quality Planning

a) At the institution level, Annual Quality Improvement Planning should be introduced as a vital process. This process should focus on developing a 3-year rolling plan on how the quality of education and student life related issues would be improved.
b) These quality plans should cover all the key facets of managing the institution, focus on education in the class-room and outside and improve quality of administration. The institute should also plan how these actions would be resourced based on the availability of funds.
c) The institution level annual quality improvement plans should be consolidated to form the university quality improvement plan. This should be the basis of activities for the QM at the university level and should be reviewed for progress by the Vice-Chancellor.
d) The annual quality plans of all universities should roll up to the state level for necessary actions by the State Council for Higher Education. Internet technology should be leveraged to create a database of plans and progress reports rather than resorting to regular mail.

### 8.3.4 Quality Processes And Standards

a) Curriculum development and enhancement is a vast subject by itself, and it merits a separate discussion. As a basic approach, processes, roles and responsibilities for curriculum development should be published (as-is), especially at the institution level.
b) At the institution level, the quality of the processes should be assessed through established processes, such as that of NAAC, to identify areas for improvement. The UGC or the State Government should fund such assessments fully or partially.
c) At the institution level, interdisciplinary teams should work on setting up quality process manuals and identify / implement process improvements. As appropriate, external consultant help should be explored.
d) Focus of Education Research Team at the state level (described above) should be on strengthening the teaching-learning processes. Based on the research, this team should disseminate latest developments in teaching / learning processes across institutions.
e) A focus group at each institute should work on developing innovative methods of assessing students over and above regular methods (e.g. exams / tests). Emerging global practices in assessing effectiveness should be adopted as State Standards.

### 8.3.5. Developing Faculty and Knowledge

a) It is critical to sustain the intrinsic motivation of people involved in quality improvement. They must be excited about high performance and intellectual development. Unless we clearly differentiate between high performers, average performers and those who must improve, performance will tend to decline. Thus a team of HR experts (from education, industry, services and consultants) should be formed to re-look at the performance management practices, including appraisal, feedback and goal setting. The recommendations of this team should be implemented under the guidance of the State Council for Higher Education.
b) A State Standard towards faculty development should be designed and mandated. This framework should be developed with leading Human Resource Development experts, nationally and internationally.
c) The framework should include guidelines on extent of investment optimum for an acceptable level of faculty development, based on global benchmarks. This should be mandated, and a fixed percentage of unassigned grants should be demarcated for the same. The use (extent and type) of these grants should be reviewed periodically by the respective QMs.
d) The State Council for Higher Education should further reinforce the statewide initiative on quality related training through the formation of a virtual Educational Quality Institute. High quality courses should be developed by leading quality experts and E-learning should be explored.
e) Knowledge Management is vital to get cumulative advantage of faculty experience across all institutions. Education Research Team should develop a web-based knowledge management system. Suitable incentives for knowledge use must be designed to make this successful.
f) A self-managed network of educational quality professionals should be established to provide regular opportunities for the quality managers to interact on matters of quality improvements (similar to the Software Process Improvement Network (SPIN) group for software industry).

### 8.3.6. Leveraging Information Technology

a) The State Council of Higher Education should setup a focused team to define a comprehensive information technology strategy for the education sector in Karnataka. This plan should focus on the following key elements:
i. Development and implementation of IT infrastructure required to maintain a database of performance data of all the institutions
ii. Leveraging the power of e-Learning for student and faculty development. This should be extended to curricular and extra-curricular aspects
iii. Establishment of a Governance Information System (GIS) that can provide reports and analysis on the levels of quality of all institutions
b) At the institute level, annual plans should include IT plans and elaborate how IT would be used to bring global knowledge into classrooms. Focused actions should be taken on full utilization of available IT assets. Institutions should work with IT companies to take expert help on how IT can be best leveraged within limited resources.

### 8.3.7 Collaboration and Partnerships

a. While the institutions may take various initiatives to partner with external organizations and align the educational system to the emerging marketing needs, there is a case for further increasing the involvement of industry and service sectors in managing quality at the institutions.
b. The Quality Managers should identify visionary managers from external organizations and formulate Quality Governance Boards in partnership with them to review and guide the quality improvement plans. They should work with quality experts in these organizations to develop new ideas on how established quality practices can be used in education. Key external quality experts should be inducted on the Quality Steering Team at the institutions and university.
c. Education Research Team should establish an international network of experts in educational quality, accessible by all institutions. Best faculty should be encouraged to attend international seminars and utilize speaking opportunities to debate innovative and emerging methods to improve the quality of education.
d. The Education Research Team should explore formal alliances and agreements with educational quality organizations worldwide and leverage this partnership for bringing new knowledge into the state level institutions.

### 8.4. Measuring and Reviewing Progress

a) A key aspect of the quality movement is to establish clear accountability across the educational system. As an initial step, the institutions should be required to publish quality statistics to the society at large through the media.
b) On a quarterly basis, quality performance and progress reporting should be formalised at the institutions, university and state level. These reports should be rolled up from the bottom through the use of information technology (GIS).
c) Formal quality reviews should ensure that the program is reviewed for progress and effectiveness. Institutions should setup a monthly quality review chaired by the head of the institution and convened by the QM. At the university level, the Vice Chancellor should replicate a similar structure, though a quarterly review should be sufficient.

### 8.5. Recognizing and Nurturing Excellence

a) To ensure that the quality journey is exciting and motivating for all those involved at the Institute level, the heads of institutes should develop a recognition program to motivate those who make significant contribution to quality. The recognition could be financial or non-financial or both. The structure of the program should be made transparent.
b) State Quality Awards should be instituted similar to the Malcolm Baldrige National Quality Award, USA to recognize excellent institutions and Universities on an annual basis. This program should be positioned as a highly coveted award and should translate into special developmental grants for the winners. A structure to manage this award should be set up by the State Council for Higher Education.

### 8.6. Recommendations

The recommendations would need to be planned and sequenced over time. It is fair to expect that these elements should become fully functional over the next 2-years and start delivering results from the 3 rd year onwards, though it must be noted that the real impact of results can be expected by the 5th year.

To initiate the EQUIP, it is recommended that, at the very earliest:

1. The State Council for Higher Education should define measurable quality goals. A facilitated workshop by leading quality experts should be conducted to achieve this.
2. The Quality Management structure (including the dedicated Quality Manager and Quality Steering Team) at the university level should be established.
3. Pilot institutions should be selected (either 1 per district or 20 across the state). The Quality Management structure of the pilot colleges should be established
4. The Quality Managers of Pilot institutions should be developed as Quality Champions. The training course for this could be developed in collaboration with external organizations
5. Actions detailed in section 8.3 should be taken up in pilot colleges. Processes should be detailed under the guidance of State Council of Higher Education by subject matter experts.

With the success of the pilot projects and the establishment of detailed processes to manage the Educational Quality Improvement Program (EQUIP), the movement should gradually gain momentum. After a critical momentum is achieved, the State Council of Higher Education should reconvene on this issue and identify further refinements to the implementation approach and initiate a state wide roll-out to achieve wider impact on the educational system.

## Chapter IX

RESEARCH IN UNIIVERSITIES

A University stands for humanism, for tolerance, for reason, for the adventure of ideas and for the search for truth. It stands for the onward march of the human race toward higher objectives. Universities are places of ideals and idealism. If the Universities discharge their duties adequately, then, it is well with the nation and the people.

### 9.1 Introduction

Research is an effective instrument for growth and change. It has been brought into the mainstream of economic and social planning in all sectors of human activity. The tradition of research in India is over 5,000 years old and in recent decades significant achievements have been made in the areas of nuclear and space sciences, electronics and defence, agriculture, live stock development, health, political, economic, social and administrative systems and human behavior. Advances in science, technology and understanding of the complex dynamics of socio-political and economic relationships are the products of systematic and need-based research.

India has the third largest scientific and technical manpower in the world. It is estimated that the universities in India are awarding 4,000 doctorates and 50,000 postgraduate degrees annually. In Karnataka alone, in the last 3 years, 1379 Ph.D.s have been awarded ${ }^{7}$. Every year in the National Eligibility Tests, conducted by the UGC for the non-science subjects and jointly by the CSIR-UGC for the Science disciplines, about 5000 post-graduates qualify for appointment as lecturers in Universities and Colleges ${ }^{8}$. The state-level eligibility tests conducted by the States also identify thousands of eligible candidates for appointments as teachers. This year alone, in the NET-UGC-CSIR, tests about 1.75 lakh post-graduates have registered and about 5000 have finally qualified.

### 9.2 Significance of research

Universities in Karnataka are in general research-cum-teaching institutions. The KSU Act, 2002, defines each department as Department of Post-graduate Education and Research. Their research potential has yet to be fully realised, save in the case of some departments and a few teachers. Various academic meetings have debated the research output of the universities, but have not been able to reach a consensus on measuring the quality of research being undertaken. A major challenge to Universities today is the introspection of their identity as institutions of

[^5]research and higher learning. They have to kindle a quest for knowledge and a thirst for life-long learning.

The primary objectives of universities are: 1) To teach postgraduate and advanced courses. 2) To conduct original research in various areas of knowledge in order to train students in the latest tools of research and also to equip them with frontline knowledge. 3) There is a third role that is increasingly being recognized, namely, extension. Extension helps transmit knowledge that is being created to the people in a way they can understand, appreciate and possibly use it. In order to do these things effectively and competitively in the present global environment, Universities would require special attention to reach high standards of research. It is important that Universities attract persons of scholarship with an established reputation and to create an environment for them to stay and undertake research of quality and relevance. In the present context of Universities, one has to motivate teachers, who are already there, so as to make them good researchers. Simultaneously, while recruitments are made, it would be necessary to keep scholarship high on the agenda, so that, the new entrants in the University have good research aptitude.

### 9.3 Research tradition in Karnataka

In pre-independent Karnataka, some of the colleges / departments carried out frontline research in physics, chemistry, botany and other subjects. Central College in Bangalore in the field of sciences and Maharaja's College in Mysore in the field of humanities supported world-class research. During the last eight decades, alumni and faculty have gone out from these colleges to create and nurture research laboratories and scientific institutions, social science research institutes and language research centers both in India and abroad. They have made seminal contributions to a wide range of industrial, economic and societal activities.

It is unfortunate that, today, many of the university departments in Karnataka, and indeed in India as a whole, suffer from outmoded infrastructure. They are at a great disadvantage in
imparting education using the latest techniques. Universities and colleges also suffer from lack of funds for up-grading teaching methods, building maintenance, hostels and even toilet facilities and drinking water. Sports grounds are a luxury to newer institutions, which they can hardly afford, especially in urban areas. Given this over all situations, it is no wonder that so far as research is concerned it falls far short of what front-line research would need. There are some exceptions but the general situation is a matter of great concern. The lack of funds is a common problem as most of the money comes from the Government or Governmental-sponsored agencies.

R and D has been supported by central agencies such as the Department of Atomic Energy, Department of Space, Defence Research and Development Organisation, Department of Science and Technology, Department of Biotechnology and the UGC in the Science disciplines. In the humanities and social sciences, the funding organisations are the Indian Council of Social Science Research, Indian Council of Historical Research, Indian Council of Philosophical Research, United Nations, Agencies, World Bank, International Labour Organisation, Departments of Education and Women and Child Development in the Ministry of Human Resource Development, Ministry of Social Justice and Empowerment and UGC. AICTE gives funds for research in engineering. A new approach on the part of University managements to secure R and D contracts is required. R and D contracted by Indus try or the services sector is more an exception than the rule. This situation is changing but very slowly indeed.

### 9.4 Social science research

The search for solutions to real world problems constantly pushes us to expand Social Science Research. One should be committed to undertake research on development that advances knowledge and contributes to the solution of real-world problems. Research should be interdisciplinary, relevant to decision-makers and policy makers, based on the involvement of non-academic partners in the research process. The objective should be to provide an adequate standard of living for all, and to develop forms of governance that promote the values of a civilised and caring society.

### 9.5 The quality of research in universities

Being at the apex of the educational pyramid, universities have a key role in producing quality teachers as well as researchers for the nation. A comparative study of teachers of post-graduate departments of universities and those of colleges reveals differences in work culture. In degree colleges, teaching is mandatory and they have to improve their knowledge in teaching by undergoing orientation and refresher courses, summer camps, workshops and participating in seminars/symposia from time to time. On the basis of these activities, teachers are considered for promotion to the next grade. Some college teachers, who are interested in research, may conduct research and publish papers. Research activity of college teachers is invariably out of their natural interest rather than as a yardstick for their promotion unlike in the universities. This neglect of research in colleges results in wastage of talent as also confines the spectrum of studies that could be undertaken by teachers in the colleges.

There is a serious concern over the quality of Ph.D.s being produced by the universities in the country including Karnataka. The quality of Ph.D.s and research publications has been on a steady decline. Action should be initiated to evaluate the quality of research work and enhance it in all possible ways. Admission to research programmes should be based on aptitude and potential of the candidate.

### 9.6 Research and professional development

In universities, research has been given considerable weightage in appointments and promotions, and Ph.D. has been made compulsory for appointments beyond the level of Lecturer for university teachers, and research based M.Phil. for college Lecturers, by the University Grants Commission (UGC). This requirement has been in existence for several decades, but it has had an adverse effect on the quality of the Ph.D. as not all teachers have an aptitude for research. The pressure has increased on the fewer guides available and therefore quality suffers. Alternatively, guides are appointed when they have no experience of independent research. Having a Ph.D. is not adequate for becoming a guide.

The university needs to create an atmosphere to promote research. It is not enough to insist that a teacher acquires the Ph.D. degree. It is also necessary to create a climate in which research is nurtured by providing the infrastructure facilities and releasing funds on time to the Principal investigator. If researchers have to run from pillar to post, incentive for undertaking research decreases or is nil. Those undertaking research also carry teaching responsibilities. This needs to be considered in the load they carry especially with respect to the number of teaching hours.

While research helps a teacher to increase depth in his/ her subject, teaching cannot be compromised when undertaking research in terms of time or performance. In the end, a teacher must be evaluated for his/ her abilities and contribution to teaching, while research undertaken by the teacher has to be seen as his/her motivation to increase knowledge in the subject taught. If universities remain clear about these objectives of teaching and research activities in the university system, both will get their respective dues in the evaluation of teacher performance.

It is unfortunate that there has been no evaluation of teaching, either self-evaluation or evaluation by students. Hence, there is a greater reliance on evaluation of research, which is easier to bring under the microscope. Hence, universities need to maintain a balance between excellence in teaching and excellence in research.

### 9.7 Steps to improve doctoral research

Admission, monitoring and examination of Ph.D. candidates in universities need to be reviewed. A more rigorous system of $\mathrm{Ph} . \mathrm{D}$. evaluation is needed today. We should strengthen the quality of research in universities. Only students who have the right aptitude for research must be permitted to register for $\mathrm{Ph} . \mathrm{D}$. so as to improve the standard of research. The number of students per guide should be fixed as per UGC norms.

Universities have been trying to streamline the research process. The process of change should begin with admission for the Ph.D. till graduation. Some suggested procedures are:

1) Admission for those who have passed the NET/ SLET followed by interview by the Board of Research Studies with 2 experts invited if the same expertise is not within the Board Membership. Such NET/ SLET may not necessarily have JRF.
2) Admission of those who do not have NET/ SLET should be by an examination designed by the university (not necessarily the Department). Those who pass the test should be nominated by the Board of Research Studies.
3) Six to nine months spent on:
a) A course on research methodology specifically relevant to sciences, social sciences, humanities.
b) A course on statistical concepts (The focus should not be on solving statistical formulae but on how and where they are applicable in research.)

Some other measures to streamline the research process may include also the following :
a)Paper writing focused on the proposed area of study through library, Internet, work, key informants and other sources.
b)Presentation in a seminar the issues in his/ her papers and their relevance to the proposal intended to be developed.
c) Finalisation of proposal and instruments /design of study.
d) Data collection/scientific experiments.
e) Writing report and presentation of preliminary findings in a seminar
f) Finalisation of report
g) Viva voce open to all faculty and Ph.D. scholars. Examination of thesis, prior to viva, by experts outside the university to examine the candidate.
h) Final evaluation report to be added to the viva and a report on the thesis examined by the experts to be submitted to the university, passing or failing the student.

### 9.8 Research priorities for Karnataka

Universities in Karnataka should prioritise research areas, provide support, in a cost-effective way for selected research activities, monitor and evaluate these activities, support the training of researchers, attract and retain good researchers in the University, create conducive research environment, provide incentives for re- searchers, and support the application of research outcome towards national development

Our research must focus on various forms of harnessing energy including use of nuclear energy for peaceful purposes such as power generation, applications in agriculture, medicine, industry and other areas. Application of electronics in areas such as agriculture, health and service sectors has to be given special attention. Since Karnataka has a coastline of more than 300 miles, research in oceanography needs to be encouraged to ensure optimum utilisation of living resources, exploitation of non-living resources such as hydrocarbons and minerals, and to harness ocean energy. In biotechnology, the areas, which have been receiving attention, are cattle improvement through embryo transfer technology, in vitro propagation of disease resistant plant varieties for obtaining higher yields, and development of vaccines for various diseases.

The areas for research in the Social Sciences are vast, especially research in the field of development. For instance, evaluation can be undertaken of State and Central Government schemes, especially how much of the scheme is intended for the poor actually reaches them, studies on gender issues, on child labour, child abuse, and the relevance, design, and the delivery system of schemes. There are only suggestive. Each discipline has its own concerns. Inter/disciplinary research enhances, the possibility of finding solutions to complex problems.

### 9.9 Steps towards better research outputs

In order to improve the quality and relevance of research at the university and college level in Karnataka, adequate research facilities are required. This includes research refresher courses for college and university staff, space for housing research project staff, adequate reference books and journals in the library, administration which is facilitative of research. Equipment such as computers, funds for operation and maintenance, access to data bases and other communication channels, support for enrolling into professional societies and subscribing to research journals, and, last but not the least, communication channels between universities and users of knowledge, especially industry, services, local bodies, state and central governments, international organisations and NGOs.

During interactions, the Deans lamented about the lack of freedom to conduct research due to the cumbersome procedures for operating project funds by them. Restrictions and application of archaic rules were some of the complaints recorded by the Deans with regard to research projects in the Universities. The Task Force feels that every University must work out details of the requirements for research and provisions / rules that can be framed, which can guide the funding and the allocation. Researchers must be given a free hand to operate Research Grants with rational checks and balances. However, the teachers operating Research Funds must be responsible and must satisfy the rules framed by the University/UGC or the sponsoring agency. (A guideline is given as an annexure)

Whatever may be the criticism, one has to keep in mind that there are some dedicated people who are carrying out commendable research work. The rest is for the individual faculty members to do something about increasing the research output. Universities could optimise research capacity in a given field where they have strength, to enable the researchers to undertake various aspects of research in their field (including procure-
ment of equipment and materials, maintenance of physical facilities, training of researchers, and dissemination of research results) at inter- national standards.

To fashion a new environment for research, the University generally requires greater financial resources. They should facilitate their faculty efforts to raise money from the various research funding organisations. Enterprising Universities should reach across old University boundaries, to link up with outside organisations and groups. They should work on knowledge transfer, industrial contacts, intellectual property development, continuing education, fund-raising and even seek alumni donations. Today, we have to realise that the willingness of the universities to work with industry is not a pact with Mammon. Instead, industry's patronage has become a crucial part of institutional viability. Interdisciplinary project-oriented research centres should grow up alongside departments, as a part of the academic work.

Academic leaders in universities around the world secure patents for inventions involving application of results of research, which are put to use extensively by industry by way of new products and processes. Academicians in Karnataka have been conspicuously absent in the list of patent holders, barring, a few exceptions. This could be due to cultural factors, which discourage treating knowledge as an item of sale. But the world we live in treats knowledge as intellectual property. We must create an environment in which our academicians are encouraged to take up applications of their work, which lead to solving practical problems, and needs of society. They must also be familiarised with the process of filing patents and securing them including funds for the same. Each university should have on its staff, or available to it, a person well versed in patent law who can assist the aspiring patent holders. In assessing the worth of an academic, patents secured should also be a criterion.

Our research should aggressively pursue new and emerging technologies in natural sciences. We should focus on solving real driving problems in life sciences, social sciences and humanities, which push our core research and development efforts. This solution-
oriented approach will ensure that our results are relevant to our society rather than be only of academic interest.

## Conclusion

We believe that universities have more talented young minds than the aging Government laboratories or research councils. We need to stimulate the young faculty especially to develop an inquiring mind and show concern and interest in studying the nation's problems and needs.
9.10Recommendations:

1. To ensure greater focus on research, the university must prepare guidelines for registration of Ph.D. candidates. Since universities have no uniform policy, the entrance examinations for Ph.D. have become ritualistic. The State/Universities need not conduct any entrance exam or CET, but can select candidates from the NET/SLET pool, which is also recommended by the UGC. If a student is not taken from this pool, an appropriate test should be derived.
2. A screening mechanism for selecting research supervisors needs to be introduced. Those who have not published a single paper in any refereed or professional / academic journal should be considered ineligible for guiding Ph.D. students.
3. Each University shall have a Board of Research Studies. Each University may allot at least 10 per cent of its annual expenditure as seed money to support research.
4. Each teacher and especially a Research Guide of University / College should be engaged in independent research.
5. College teachers should also be encouraged to be guides, if they comply with the criteria for selection. Such a Department in a college could be recognised as a Research Centre, so that, it could attract funds for infrastructure and research. Continuation of recognition of guide should be based on research and publications during the period.
6. 'The research aptitude of students must be scientifically tested before they are admitted to the research programme. The aptitude and ability of the research student is also a requirement apart from subject knowledge. Hence, there is a need to strengthen the process of admission to $\mathrm{Ph} . \mathrm{D}$. programme by the following procedure.
a. NET / SLET qualified candidates be registered for Ph.D. after an assessment interview. For other scholars, universities may devise their own tests for their candidates.
b. Each Research Scholar should give at least 2 seminars, or presentations, before submitting the thesis. These could be related to the proposal for research and the preliminary funding.
c. There should be an open viva-voce (announced on the notice board) by the experts who have evaluated the thesis. The defence should be open to other faculty members and Ph.D. scholars.
d. The experts will individually submit a report of the evaluation of thesis. They will make brief observations on the candidate's performance in the viva, pronounce judgment of pass or failure.
7. To stimulate research in universities, the Government will create a fund to be utilised by the universities for providing Research Fellowships.
8. Universities may publish refereed journal in their area of expertise recognised nationally and internationally
9. Each teacher may be encouraged to attend conference/seminars to present their research papers, to ideas from the peer group outside their own University, and, on return, share the same with their colleagues in the university.
10. The procedure for the utilisation of Research grants be simplified as far as possible and greater financial responsibility may be vested in the Principal Investigator.
11. Universities should develop procedures for evaluating their research output.
12. To address the problems of the $21^{\text {st }}$ century, it is very necessary to promote inter-disciplinary and multi-disciplinary research in the activities. This will require the collaboration of different departments.
13. In each Department there shall be general research facilities with open access and some specialised facilities with limited access.

## II. Guidelines for establishment of research \& development boards (RDB)

Universities generally have Post Graduate Departments in Science, Technology, Social Science and Professional Courses like - Education, Management and Languages. It is difficult to cater to the diverse needs of these disciplines through a single agency or through the existing University system. Therefore, it is suggested that, two Boards be established for Research and Development in the following areas. These Research and Development Boards can be conveniently established under Section 37 of the Karnataka State Universities Act.

In the first instance, two Boards may be established;
a) RDB for all Sciences and Technology and
b) RDB for all the remaining subjects.


#### Abstract

a) RDB for Sciences:

The Board should contain 3 to 5 persons from different disciplines who are actively involved in Research and should be headed by a Senior Professor who is actively involved in Research. Of these people, one person shall be a distinguished Researcher from outside. University Development Officer, Director, Planning Board and Director! USIC, shall be Ex-officio Members.


b) Board for Social Science and other subject:

This Board shall also have 3 to 5 members from different disciplines, who shall be headed by a Senior Professor, who is active in Research with distinguished Researcher from outside. The Director, Planning Board and the University Development Officer shall be Ex-officio Members of this Board.

## Functions of the Board:

The Board shall be responsible for initiating, coordinating and supporting individual and team Research in every Department assigned to it. It shall be competent for the Board to establish norms and guidelines for the procurement and use of equipment, materials and management of funds. In order to help the Committee, Annexure- ix. 2 provides some of the tasks the Boards can do. This is not an exhaustive list and the Board is free to expand or modify the list.

## Finances:

It is recommended that University should provide a regular budget of at least Rs.20-00 lakhs per annum under the separate Budget Head - Funding for Research, which can be used, particularly for following purposes.
a) Maintenance of equipment after the project funding stops.
b) Providing additional money for supporting ongoing project when there is a genuine shortage.
c) The fund should be managed by the Board concerned.

## 2. Guidelines for operation of Research and Development grants for individual Projects

To enable smooth execution of research projects and utilization of funds granted under the various R\&D agencies (UGC/SAP/DRS/DSA/COSIST) CSIR, DST, AICTE, ICMR, ICAR, ICSSR, ICHR etc.,) the following guidelines may be followed.

1. The Coordinator/Principal Investigator (PI), should obtain the formal administrative sanction for the expenditure of grant for the entire duration of the project beginning
from the date of implementation to the termination of the project. The Vice-Chancellor will grant such one-time administrative sanction prior to the implementation of the project.
2. The Coordinator / Principal Investigator (PI) are autonomous with respect to administrative matters related to the use of contingency, working expenses, field work, hiring taxi, granting leave to personnel working in the project etc., as per the provision of the grant.

2(a) The PI may direct investment of project funds in term deposits of the funds for periods that the funds may not be needed. The interest accrued on these investments should be credited to the project account.
3. The Coordinator/PI may draw advances as and when required directly from the Finance Officer (FO), without seeking further administrative sanctions. The advance taken should be settled by directly submitting the bills to the FO for processing, within 3 months.
4. The Coordinator should be given adequate freedom in the management of the project consistent with the norms suggested by the Funding Agency. In order to do this, Annexure 'II' contains some suggestions for administrative norms for functioning smoothly. These norms could be modified, if necessary, to suit the local requirement.

## ANNEXURE - ix. 2

The Board may be authorized to look into the following aspects and any other details that would help in smooth functioning:
a) A Log Book should be maintained for every equipment/department and steps should be taken to make the equipment available to all the genuine users. If there is any problem it should be referred to RDB.
b) A Dead Stock (Assets) Register should be maintained for every project (individual or departmental).
c) A list of obsolete/unusable equipment be prepared by every department and the University should take steps to write them off expeditiously.
d) Interest earned on the project funds (steps should be taken in, this direction by opening separate accounts for projects) should be made available .to projects. This is consistent with the norms of the UGC, DST and other funding agencies.
e) USIC/RDB should organize training programs for writing projects, formulating interdisciplinary programs and also help in maintenance of equipment of all the departments.
f) Equipment obtained under various projects (departmental \& individual) should be entered in the stock register for proper accountability.
g) The University should open a register for various projects of departmental and individual researchers, say in the planning section or RDB, so that the entire picture of research activity is available at one place at any point of time and monitoring of the activities could be done more beneficially. A suitable format may be developed by RDB.
h) The Board should encourage, examine and support collaborations and interactions with industry, National level institutions and other institution/organizations.
i) Encouraging quality research by instituting mechanisms of recognition \& awards.

## Annexure ix. 3

1. The Coordinator/PI may spend up to Rs.5,OOO/- (five thousand) only at time on any item without calling quotations.
2. For purchase of individual item (s) costing above Rs.5000/- comparative quotations shall be called from at least three suppliers/dealers. This will not apply for purchases that are covered under the Rate Contract.
3. For items costing up to Rs. $25, \mathrm{OOO} /-$ the Coordinator/PI are given autonomy to place orders after inviting the comparative quotations from at least 3 suppliers. The quotations need not be referred to Purchase Committee.
4. For purchase of items costing more than Rs. $25, \mathrm{OOO} /-\mathrm{a}$ purchase committee consisting of the Coordinator/PI and Deputy Coordinator/Co-I if any, Chairman of the concerned department, the FO and any officer/per term nominated by Vice-Chancellor should be constituted. The Coordinator/PI will convene the meeting.
5. Items that are covered under the Rate Contract (e.g. Chemicals, glassware, equipment etc.,) by the University may be purchased without calling for quotations regardless of the cost.
6. Items whose prices are approved by the Govt. of Karnataka can also be purchased without obtaining the comparative quotations.
7. For purchase of items directly from the manufacturers/sole suppliers or distributors of Indian/foreign materials in India and, from standard company show rooms, it is not necessary to obtain comparative quotations. The single quotation obtained from any of the above suppliers maybe used to place orders with the approval of the Vice-Chancellor.
8. Purchase of Books: The books may be purchased directly from the suppliers without calling for quotations with at least $10 \%$ discount. In case of foreign books, the bills
should accompany the price proof of GOC conversion rate applicable at the time of supply.
9. Field Work: In projects where fieldwork if a component, the Coordinator/PI are encouraged to take up the field works as far as possible on holidays and weekends. Where fieldworks are carried out for less than 5 days, the Coordinator/PI may undertake the fieldwork with prior intimation to the concerned Chairman of the Department. The PI is authorized to sanction duly leave and TA/DA to the personnel (e.g. JRF, SRF, project assistants, postdoctoral fellows, research associates etc.) working under the project. The teachers working in the coordinated projects should obtain prior permission from the Concerned COD for field works not exceeding 5 days. The Coordinators are authorized to sanction TA/DA to teachers participating in the project. For fieldwork requiring more than 5 days up to months and men's the researchers should organize it.

## 10. Library Reference Work/Laboratory work outside the University/Attending

 Conferences/Workshops/Seminars: The Coordinator/PI and all the personnel working under the sanctioned project are permitted to visit the required institutions for the above purposes under prior intimation to the concerned COD. The registration fees for seminar/ symposium/ conference/ workshop may be claimed out of the project grant.The Coordinators are authorized to sanction TA/DA to teachers participating in the project. The COD of concerned department is authorized to grant leave for the purpose.

The PI is authorized to sanction TA/DA to the respective project personnel (e.g. JRF, SRF, project assistants, postdoctoral fellow, research associates etc.) for travels (listed under the serial numbers 12-13 above) related to the project, out of the project funds. In case of the project personnel, the PI is authorized to sanction duty leave beyond 5 days also.
11. TA/DA to Project personnel: Those drawing a salary (fellowship) of Rs.5,00O/- or
more per month are eligible for I class rail fare.
12. Vehicle Hiring: As may be needed for fieldwork or other travels the Coordinator/PI may hire taxi. In case of a car the current rate admissible by the University (per km) and payment for a minimum of 300 km per day is allowed. In special cases, hiring jeep/tempo is permitted as per the existing market rates. However, a formal approval from the Vice-Chancellor is necessary in such cases where hiring charges exceed the rates approved by the University. In case of short distance field works (less than 100 km ) the investigators may also use their own cars and claim Rs.4/- per km towards the cost of petrol. These will changes as and when University changes these provisions.
13. Photocopying and Typing Charges: In order to obtain quality service in photocopying and typing works, the prevailing market rates as certified by the Coordinator/PI are allowed.
14. Appointment of Secretarial assistant/Lab-cum-Field Attendant: In case there is a provision to appoint secretarial assistant/Lab-cum-field attendant utilizing the working expenses/contingency/overhead the said personnel may be appointed after following the usual procedures of the University. In case of part time secretarial assistants (those who can typel operate computer, process papers for placing orders, passing the bills, maintaining the files and stock books et./) depending upon the experience of RsAOO600 may be paid. In case of full time secretarial assistants they may be paid Rs.15001800 depending upon the qualification and experience. For lab-cum-field assistants a consolidated salary of $\mathrm{R} \$ .1500-2000$ may be paid depending upon the skill and expertise of the candidate.

NOTE: The task 11-14 may be modified whenever University changes its rules/guidelines.
15. Overhead: Some R\&D agencies provide overhead grants for providing the necessary
infrastructures for the project work. This includes maintenance of equipment and benefits to the personnel employed in the project without reference to the funding agencies for clarification. The funds may be used to procure the equipment and accessories, air conditioner, stabilizer, UPSI exhaust fan, fan, animal cages, aquarium, dust free cabins, computer and its peripherals, printer, scanner, photocopier (Xerox machine), fax-phone, electrodes, optical/electronic components, photographic equipment, spares, consumables (chemicals, glassware, insecticides, fungicides, farm yard manure, pots for growing plants, thin sections of rocks), books, scientific journals, and for payment or reprint charges, block and page charges for publication and postage. The over head funds may also be utilized for alteration of laboratory facilities, purchase of furniture, and any other expenditure related to the project including travel.
16. SETTTLEMENT OF BILLS AND ADVANCES.
a) All bills will be .signed by Coordinator/Principal investigator. The concerned COD need not countersign each individual bill. However, all bills should be forwarded through the Chairman.
b) All bills submitted to the FO to be settled within $4-6$ weeks and the Principal Investigator/Coordinator be intimated regarding the same.
c) Following submission and settlement of advances the FO will inform the same to the concerned Coordinator/PI.
d) The accounts shall be audited by Govt. auditor or a Chartered accountant permitted by the funding agency).

## CHAPTER X

## GENDER ACCESS AND EQUITY

### 10.1.0. Introduction

India has largely been under the influence of a patriarchal culture for centuries. This culture has often been buttressed by using the support of religion, caste practices and family beliefs. However, the Founders of the Indian Constitution, who were from a more liberal tradition and seen the involvement of women in the freedom movement, structured a democratic system in which women were given an equal position with men. Making provision in the Constitution is only one measure. To make the provision a reality, requires a change in attitudes in order to practice the values reflected in the Constitution. The study published by the Government of India in 1974, on the Status of Women, brought out the problems and disparities faced by women, including educated women. Hence, the need to have various strategies to change the gender equations and strive for equality became a national concern.

### 10.1.1. Education Policy of 1986, Programme of Action 1986, and Revised Policy 1992

The National Policy on Education - 1986, Department of Education, Ministry of Human Resource Development, enunciated very succinctly the need to put emphasis on women's education in its section (Part IV) on Disparities, under the title, Education For Women's Equality. The paragraph reads:
4.2 Education will be used as an agent of basic change in the status of women. In order to neutralise the accumulated distortions of the past, there will be a wellconceived edge in favour of women. The national education system will play a positive, interventionist role in the education of women. It will foster the development of new values through redesigned curricula, textbooks, the training and orientation of teachers, decision-makers and administrators, and the active involvement of educational institutions. This will be an act of faith and social engineering. Women's studies will be promoted as a part of various courses and educational institutions encouraged to take up active programmes to further women's development. ${ }^{9}$
10.1.2. The Programme of Action, 1986, has provided the policy parameters as follows:

[^6]to gear the entire education system to plan a positive interventionist role in the empowerment of women;
(2) to promote women's studies as part of various courses and encouragement to educational institutions to take up active programme to further women's development;
(3) to widen access of women in programmes of vocational, technical and professional education;
(4) to create dynamic managerial structure to cope with the targets envisaged. ${ }^{10}$
10.1.3. The Programme of Action (POA) 1992, which was a revised policy document, although, many of the same elements of the 1986 document were retained, states:

Education for Women's Equality is a vital component of the overall strategy of securing equality and social justice in education. Paragraphs 4.2 and 4.3 of the National Policy on Education (NPE), 1986, are very strong and forthright statements on the interventionist and empowering role of education. What comes out clearly from the implementation of the NPE, 1986 and its POA, is the need for institutional mechanisms to ensure that gender sensitivity is reflected in the implementation of all educational programmes across the board. It is being increasingly recognised that the problem of $\mathrm{UEE}^{11}$ is, in essence, the problem of the girl child. It is imperative that the participation of girls is enhanced at all stages of education, particularly in streams like science, vocational, technical and commerce education where girls are grossly under-

[^7]represented. The education system as a whole should be reoriented to promote women's equality and education. ${ }^{12}$

The Task Force has noted that the Education Policy and the Programme of Action 1986 and the revised Policy document of 1992, clearly provide the policy framework for women's education at all levels with the clear aim of achieving women's equality and assuring gender justice. However, there has been a major gap between our statements and our achievements over the two decades. Clearly, the Government has much work to do to fulfil the provisions of the Policy, which are embedded in the Indian Constitution for equality of both sexes.

### 10.2.0. $\mathcal{N}$ ational Statistics on Women in Higher Education

One way to measure our progress in achieving this aim is to look at the available data. It might be useful to compare the available national level data with the data available at the State level. There is a lack of gender-disaggregated data in spite of some earlier attempts to do the same, especially in the utilisation of the various schemes of the UGC. However, whatever national level data are available from the UGC are discussed below followed by the section on State level data to identify the gender gap.
10.2.1. The Annual Report 2000-2001, University Grants Commission, ${ }^{13}$ which was available, points out that, on the eve of independence of the country, the enrolment of women was less than 10 per cent, while, in the year of reporting, it had increased to $37.65 \%$. At this rate of progress, it may take several decades before it reaches even 50 as a national percentage, let alone reaching equal enrolment of women and men. However, three states have already achieved percentages even higher than 50, that is, Goa, Kerala and Punjab, while 15 other states are above the national average of $37.65 \%$. Bihar has the lowest percentage of 24.4. Karnataka is shown just a little above the national average with 39.64 . Among its southern neighbours, Kerala (55.90\%), Pondicherry (46.54\%), and Tamil Nadu (44\%) are all higher than Karnataka (39.64\%) with only Andhra Pradesh lower than Karnataka at $34.52 \%$, which is a little lower than the national average. Andhra Pradesh had

[^8]initiated affirmative action by enrolling at least 33 per cent of women in their various courses during the Chandrababu Naidu Government.
10.2.2. The percentage of women at the various stages of the degree shows that $37.5 \%$ are women at the graduate level, $39.5 \%$ at the post-graduate level, and $36.1 \%$ at the research degree level and 32.7 \% in certificate and diploma courses. Their enrolment distribution in the various faculties shows that a little over half, $51.10 \%$ are enrolled in the Faculty of Arts, $19 \%$ in the Faculty of Science and $16.70 \%$ in the Faculty of Commerce. Among professional subjects, they are abysmally low: Medicine $3.90 \%$, Engineering $3.60 \%$, Education $2.40 \%$ and Law $1.80 \%$. Interestingly, there is a miniscule $0.40 \%$ in agriculture and $0.10 \%$ in veterinary science when rural women play a major role in these occupations.
10.2.3. There is a substantial decadal increase in women's colleges from 1991-1992 (950) to 2000-2001 (1525). There are five women's universities but all of them were established before the 1990's. This means that, in spite of the rapid growth of co-educational institutions, there appears to be a role for women's colleges in India.
10.2.4. As for women teachers, the UGC does not give a disaggregated data so we do not have the actual statistics. However, it is well known that even where women teachers have a presence, they do not occupy decision-making positions. A sample study connected with the UGC project on Women in Management in Higher Education ${ }^{14}$ showed that,

1. Generally, there were $15 \%$ or less in the topmost positions of Chancellor, Vice Chancellor/Director, Pro-Vice Chancellor/Deputy Director. In a total of such positions, 180 were men and 25 women, which is about $14 \%$ of the total.
2. Finance Officers are almost always men even in Women's Universities and this is true of Registrars also.
3. Deputy Registrars were also $10 \%$ or less.

[^9]4. Among Assistant Registrars, Direct appointments were rare but almost $17 \%$ could become by virtue of promotions.
5. Deans of Faculties were around 11 to $13 \%$. That there would be more Deans in the Faculty of Social Sciences was expected (18.92\%), but a surprise was of 25.93 per cent in the medical sciences.
6. In statutory Academic Boards and Committees, they ranged from $10.32 \%$ to $27.11 \%$ in Languages, though not a single one was Dean in the latter Faculty in spite of the larger presence of women.
7. In Administrative Committees, the situation was worse with less than $10 \%$ except for $54.2 \%$ for Inspection Committee and $31.3 \%$ for Scrutiny Committee, presumably because women may be seen to be more honest!!
8. Among the Directors of Centres in the University, such as Academic Staff College, College Council, Adult and Continuing Education, the male bastion continues ranging from none to $24 \%$.
9. While among professors, women are $18 \%$ or less, there is an increased number among readers, but a greater number has achieved it through merit promotion than direct recruitment. The percentage of women Lecturers is less in sciences and professional courses but there is a preponderance of them in the Correspondence Courses.
10. There were only $25 \%$ college principals but a number of them were in women's colleges. Particularly, there was an absence of them in Government colleges. There were only $20 \%$ vice principals but $90 \%$ of these were in women's colleges. The most presence of women in the Governing Board of colleges was in women's colleges.

Given the above situation, which is not likely to be any different for Karnataka when the national scene is so dismal, there is a need for greater affirmative action and pro-women policies in the higher education system. Unless women hold decision-making positions, sit in more than token numbers in selection committees, and are, themselves, gender sensitive, change towards equity will be an extremely slow process.

### 10.3.0 Statistical Data from the State of Karnataka

Since very little data were available from a single source, an attempt was made by the Task Force to source the data directly from the Universities. A proforma was sent to them requesting information on certain parameters. However, the experience of obtaining qualitative data was very poor. Hence, the data shared here comes with many limitations. The UGC data and the database on women managers help, to some extent, to fill in the gaps due to the absence of information at the State level and also provide a comparative base to help us gauge the scenario for undertaking the necessary policy initiatives.
10.3.1 The number of women enrolled in General Courses was 7,386 and 2,534 in Professional Courses in 6 universities to which the proforma was sent. To the query on the percentage of women enrolled, the responses came from three universities out of the 6. The highest enrolment was in Mangalore University with 53.22 per cent, followed by Kuvempu with $46.9 \%$, and Bangalore with $43.42 \%$. The average of these three institutions comes to $47.82 \%$ while the UGC has reported $39.64 \%$. These data show a larger percentage of women enrolled than the national average reflecting the higher rate of literacy of the girl child in the State (percentage to be checked). As we do not have the data for Mysore, Gulbaraga and Karnataka Universities, we do not know whether these universities have a similar enrolment of women.
10.3.2 There are 125 women's colleges in Karnataka, of which, 13 are Government and Constituent Colleges out of a national total of 208 women's colleges in this category and 112 are Affiliated Non-Government Colleges out of a national total of 1043 women's colleges in the latter category.
10.3.3.The data on women's enrolment at M.A. level were available for only three universities. Even these three have given such different presentations of data, that it is impossible to make valid observations. We do not have data specifically on the total number of women and their percentage at the undergraduate level.
10.3.4.Five out of six universities reported the numbers of scholars registered for the $\mathrm{Ph} . \mathrm{D}$. and those awarded the degree for a span of three years, that is, 2000-01, 2001-02, and 2002-03. The number for 2000-01 was 954 men and 310 women giving a percentage of 24.5 for the latter in the total enrolment; for 2001-2002, there were 777 men and 249 women ( $24.2 \%$ ); and for 2002-03, there were 938 men and 254 women ( $21.1 \%$ ). The percentage is less than one-fourth of the total enrolment. The figures for the award of the Ph . D. degree for 2000-01 were 195 men and 90 women (31.5); for 2001-02 there were 325 men and 150 women (31.1); for 2002-03, there were 342 men and 250 women ( $42.2 \%$ ), the highest figure for women. It is interesting to observe that a higher percentage of women were awarded the Ph . D. degree, than their percentage at registration, implying that women completed their degree faster than men. Although, we do not have their corresponding percentage at the time of enrolment, there is not much reason to doubt that these would be much different from the above percentages of about one-fourth of the total enrolment.
10.3.5. Observations on women Ph.D scholars enrolment in the various Faculties at the Ph.D. level is as follows:

1. In the Faculty of Arts, it varied from being a little above to a little less than $50 \%$ to even being one-third. Hence, while they are in larger numbers at the undergraduate level, fewer pursue it at the research level.
2. In the Faculty of Science, they ranged from being one-third to one-fifth or one-sixth.
3. In the Faculty of Commerce and Management, there were barely a few registered, there being either nil or 2 to 4 women. In Bangalore University, there were nil in all the three years for which the data were sought - 2000-01, 200102, and 2002-03.
4. Surprisingly, even when teaching is seen as a field for women, the Faculty of Education had either no women enrolled or they were much less in number than the men. It may not be surprising if we consider that, in the pecking order, men take all top or desirable positions.
5. In the field of Law, enrolment of men was also nil to just a few but that of women was even lower.
6. In Engineering, men fully predominated with not a single woman registered in some universities. The data contributed to the Task Force, on the subject of Technical Education in Karnataka, showed that $16 \%$ to $21 \%$ were enrolled in degree or diploma courses. Hence, it is small wonder that few move on to higher levels. The percentage of women teachers was also between $17 \%$ and $21 \%$.
10.3.6.Enrolment of SC/ST Students is also so poorly recorded that no valid observations are possible. However, from the data on technical education it is observed that barely $20 \%$ were SC women and $0.3 \%$ ST women in the Degree courses. In the Diploma courses, there were $6 \%$ of SC women and $1.5 \%$ of ST women.
10.3.7.Hostels for men and women students showed a pattern where facilities for women were consistently less than those for women, which may serve as a deterrent on enrolment, especially due to parental expectations regarding the security of their female offspring. The figures showed that in Karnataka University, there were 1866 seats for men compared to 919 for women; in Kuvempu there were 838 seats for men compared to 489 for women; in Mysore University, there were 2756 seats for men compared to 534 for women; Mangalore had 272 seats for men and 550 for women which may be one among several explanations for the higher enrolment of women in this university; Bangalore had 1252 for men and 422 for women; and Gulbarga had 511 for men and 332 for women. The total number of seats for men was 7495 , while for women there were $3,246(30 \%)$.

There is a strong case for making an effort to increase the intake capacity for women if there is to be a positive affirmation policy to increase the proportion of women in higher education.
10.3.8. The number of women teachers employed shows very low percentages for Professors and Readers. In two universities, there were no women Professors, astonishingly, one of which had a very high enrolment of women students. However, the same university had the highest percentage of lecturers while two others had about one-fifth only.
10.3.9. Women SC/ST teachers are far below their men counterparts in all universities, in most cases they were one-fourth.
10.3.10.The percentage of women in non-teaching posts was also limited with larger numbers in Group C and D posts. Only two universities had more women in Group B posts, Mangalore (54\%) and Bangalore (47\%). Women were scarce in Group A posts with decision-making powers.

The above statistics, point to the need to develop aggressive affirmative action policies to increase women at all levels - students, teachers and administrators. The Department of Education, State of Karnataka, the universities and college managements need to have brainstorming sessions to decide how best to achieve it. Largely, there is selective gender blindness. Thus, many male Vice Chancellors are heard to refer to their students as "my boys" even though, when it is pointed out, they sheepishly acknowledge that they have women students with large numbers in some departments.

Moreover, it is very amazing that universities, which are academic institutions with a research base, are unable to provide qualitative statistics. This is also the experience of the UGC. It is very necessary that the State Government appoint a lead university to prepare the necessary information parameters and provide the database to the universities and the Government for policy development. The State may provide the funds for this activity, which should be put online.

### 10.4.0. Women's University

More recently, a women's university has been established at Bijapur. Established in the twenty-first century, the women's university needs to have vision or perspective on what such a university should address itself to, which is different from the universities that were
established in the last century. There are several things that such a university must accomplish:

1. Develop courses for women in the emerging and frontier areas of knowledge and technology. It should not replicate the traditional arts, science and commerce courses of universities but identify new areas in these faculties, which will serve the needs of the $21^{\text {st }}$ century as well as in other faculties like technology.
2. Develop women who have a feeling of effectance and competence so that they are empowered for their role in the society of the twenty-first century. There should be scope in all curricula of the university for reflection on social change and women's position in society.
3. While women's colleges should remain with their respective universities, the women's university should develop sensitisation training programmes for their managements, teachers and student leaders, so that, they carry them along in the change process and make an impact on them. In fact, the role of women's colleges should also be reviewed and a process of reflection and change initiated. Most women are now in coeducational institutions and, hence, the new role of women's colleges should be to empower women for performing their role as equal members of their families and society, and to know their legal rights.
4. It should not be an affiliating university but a unitary university with undergraduate and post-graduate courses and emphasis on developing new knowledge and research on the basic concerns and problems of women.
5. The university should have an Advisory Board of women academicians and entrepreneurs to help develop its vision and mission.

There is a great need to take a new perspective on women's universities and colleges that prepare and empower women for the twenty-first century. A thorough review on the lines suggested in the report needs to be initiated at an early date.
10.5.0. Women's Studies

Women's Studies find a place in the 1986 Policy on Education. Around the same time, the UGC promoted the scheme of Women's Studies providing grants to university departments to establish the programme. In the Ninth Plan, universities were asked to start independent departments with funds made available through the university's five-year Plan grant for the post of Professor or Reader. A few universities did create such positions and received sanction from their respective State Governments for taking over the liability after the plan period. Even after 20 years of the existence of the scheme, and the direction of the 1986 Education Policy to have women's studies in every university, there is no attempt by universities to establish these departments independently as in the case of other subjects. It is only seen as a UGC scheme. This reflects on the priority given to women's concerns in the system.
10.5.1. Women's studies undertake teaching, research, extension education and field action. It is one of the few academic areas, which focuses on women's concerns, beyond the academic walls of higher education, particularly on the issues pertaining to women at the grassroots. This focus is both through research and action projects at the grass roots. Women's studies have also developed considerable documentation and expanded reference material in a field that has emerged in the world only in the last few decades in the university system. Women's studies Faculty have played a major role in influencing policy at various levels on women's issues. They have aided the Government in carrying out large-scale studies such as on the girl child.
10.5.2. A major activity of women's studies is in influencing the curriculum. This is done in several ways. It offers its own M.A., M.Phil. and Ph.D. degrees. It develops a foundation course for all students of all Faculties, Arts/Social Sciences, Sciences, Commerce, Engineering and Technology and Medicine. The course is aimed at raising awareness and making women visible. A third area is to work with other disciplines in reviewing their curricula to make them more sensitive to gender. Many courses disregard the role women have played or the female influence in the analysis of their subject. Lastly, women's studies conduct courses for women outside the university system.
10.5.3 A very important role of women's studies is to conduct awareness programmes in the colleges and university departments with students, teachers and the non-teaching staff. Sensitisation programmes generally, and empowerment programmes for women students and teachers specifically, need to be undertaken. Increase in dowries and dowry deaths, and the poor sex ratio, are two major indicators of the worsening position of women, and more so among the educated. Hence, there is a great need to develop such awareness programmes, develop foundation courses and undertake action projects in the higher education system to make a significant impact on the 6 million who are enrolled in the system at any time in India.

The Task Force recommends that universities of Karnataka undertake such large-scale awareness and sensitisation activity to promote social change as they have a total enrolment of 5,52,290 as per the UGC data. The Department of Higher Education, Government of Karnataka should ensure one university department of women's studies with adequate staff and, additionally, access the UGC scheme, at least in a couple of the universities. The Government has more to gain by the impact of this department to improve the position of women and to enhance the goal of equality. Students graduating with such inputs would have impact on their families of marriage and on other social networks, thus having a multiplier effect. It should set up a gender audit programme both in the university and in every department of the Government.

### 10.6.0 Women Managers

The data make evident that there is a dearth of women in decision-making. There is a need to reverse this situation if women friendly policies are to be evolved. The UGC has developed modules for sensitising women teachers to take up key posts in the university and the college. After conducting five regional workshops, based on these manuals, it is revising them and it is also developing workshops for the training of trainers. The Government of Karnataka could accelerate the process by using these manuals and conducting the programme of training of trainers for its own universities and colleges, either at a university
or in its Administrative Staff College, to motivate and prepare women teachers to take up key posts in the system.

### 10.7.0 Selection Committees

All selection committees for teaching and non-teaching staff must have women members and they should not be only a token number. As for as possible half of such Committees should have women as chairperson where vice chancellor or another statutory authority is not named. Such women members should have a sensitisation programme so that they understand their role.

### 10.8.0. Statutory and $\mathcal{V}$ Non-Statutory Committees

Statutes should be amended to ensure women are nominated/elected on the various committees and as chairs. This should be put into effect immediately for the non-statutory committees. There should be no gender bias on the subject matter of the committee, such as equating committees like finance being only appropriate for men.
10.9.0. Part-Time $\mathscr{P h} . D$. Scholarships for Women

The State Government could play a major role in establishing part-time scholarships for women graduates to pursue the $\mathrm{Ph} . \mathrm{D}$. Women are often withdrawn from education and occupation, after the Master's Degree, as there is cultural pressure for marriage and starting a family. If such women could access part-time scholarships, they could continue with the Ph.D. for at least 6 years on a part-time basis and, then, re-enter the academia as teachers without feeling that they have been out of touch with their specialisation.

### 10.10.0 Hostels for Women Students and Unmarried Women Teachers

It has already been pointed out in the statistical presentation that women's hostels are woefully insufficient and tremendous efforts need to be made to attract women students to close the gender gap as a measure of equity ensured in the Constitution of the country. Guardians want to ensure that their wards live in a safe environment. Women, who complete
their degrees in the colleges located in the districts, need to migrate to their respective universities for post-graduate studies. Facilities need to be created for them. It is possible to make hostels self-sufficient for recurring costs on students except for those students from the lower economic groups. This needs urgent attention of the State Government.

Similarly, women looking for teaching jobs find it difficult to move to a college or a university, where there is a vacancy, if they cannot find safe living quarters. Hence, hostels for women teachers are required so that they do not remain confined to their natal homes.

### 10.11.0 Technical and Professional Courses for Women

It is unfortunate that women have such a low presence in technical education as shown by the figures above. Their presence in professional courses is also not high. The Government of Karnataka can initiate special technical courses in frontier areas and marketable professional courses in their newly established women's university and some of the larger women's colleges. Empowerment of women will be a reality only if they have a capacity to enter the areas of business, commerce, technology, and the various professions, aside from their own sensitivity to their position as women in a modern democratic social order.

### 10.12.0 Infrastructure for Women in the Universities/Colleges

Universities and colleges have inadequate infrastructure to meet the requirements of women students and teachers. Often, there is a total insensitivity about it such as the need for adequate number of toilets in accessible locations and common rooms for rest and recreation. The UGC already has a special scheme for it and the State Government may supplement it, especially in institutions, which are ineligible for such UGC grants.
10.13.0. Gender Audit

Every university and college should have an Audit Committee with responsibility to monitor the progress of policies, which are gender friendly. They should develop a database, to be updated periodically, to monitor the progress of the policies. The Committee should have both women and men, who are gender sensitive, to steer the activities and also to obtain feedback from the students and staff.
10.14.0. Increasing the Numbers of Women in Higher Education from Feeder Institutions The enrolment of girls in schools in urban areas has seen a steady increase and the problem of withdrawal is mainly in certain cultural groups at the end of primary school. The main reason that the girls can continue is not only because of the liberating influence of the urban environment but also because of the accessibility of secondary schools nearer their home. However, accessibility to secondary schools in rural areas is a major problem because such schools are not always available in close proximity like the primary and upper primary schools. Parents permit their sons to travel a longer distance by public transport to attend secondary school but are not as willing to do so for their daughters due to the fear of their safety. Even the brightest students, among girls, have to drop out. Moreover, even should they finish school, they cannot access a college except in the taluka or district headquarters. Hence, it would be useful to create multi-user hostel facilities at the district level and in some of the taluka headquarters where both secondary schools and college exist. This facility will allow girl students to complete secondary school and even college in the rural areas of Karnataka. Unless we have methods to increase access at lower levels, we will not be able to increase numbers at the higher levels of education. Single women teachers in the secondary school and college, could use such facilities, thus attracting more women teachers.

### 10.15.0. Suggestions From the Academic Community

The VIIth Manual in the series on Women in Management in Higher Education (UGC) was on creating a database on the situation of women in the higher education system. It was a
sample study conducted by Dr. Pam Rajput, of the Centre for Women's Studies, Punjab University, Chandigarh. It was a sample study to get an idea of the direction of women's position in higher education. The sample consisted of 90 universities and 132 colleges and the data spanned the period of 1996-97, 1997-98 and 1998-99. Colleges were selected region-wise on the basis of urban/rural location. It was also representative of private, government as well as professional colleges and included 25 women's colleges. ${ }^{15}$ The respondents of the study on women managers were asked to give their suggestions on how to increase the proportion of women in higher education. Their responses in brackets are given below with the responses from 67 out of 90 respondents. ${ }^{16}$

1. Introduce reservations for women at all levels (47).
2. Affirmative action in recruitment/inclusion of women teachers in committees (25).
3. Strategies/programmes for sensitisation/capacitybuilding/awareness generation among women (23).
4. Training (16)
5. Greater efforts for women's education in rural areas and introduction of women's studies component in undergraduate/postgraduate courses (10).
6. Healthy, discrimination-free work environment (8).
7. Specific facilities for women (8).
8. Gender equity policy as well as gender audit of each department (4)
9. Relaxation of age limit (2).

### 10.16.0 Sexual Harassment

Sexual harassment in educational and other types of institutions and in the workplace is being increasingly brought to the surface and recognised as an abuse of the dignity and integrity of the woman. Since the Supreme Court Judgment on the subject, it has become mandatory to develop mechanisms to handle such issues. Interestingly, even before this judgment, the Standing Committee for Women's Studies (UGC) discussed this issue as a couple of cases on some campuses came to their attention. It was felt that adequate mechanisms should

[^10]be developed in order to handle such issues and to promote a more positive gender friendly environment in the universities and colleges. Their recommendations were approved by the Commission and circulated to the universities in India. The constitution of committees in the universities and colleges and the specifics of membership were circulated. Such sexual harassment may be of a female student by a teacher or another student or of a female teacher by a male colleague or one in an administrative hierarchy. Such committees should be set up in the women's university and women's colleges also, since they have male teachers, administrators and other staff. The requirement to set up such a Committee is in recognition of the importance of respecting the rights of women in situations where their vulnerability is considerable in unequal power-sharing arrangements, reflecting of male attitudes to women.

Conclusion
This chapter is on access and equity addressed to that half of the population of this country, which is yet to be assured its rights under the Constitution. Higher Education is one area of human rights that needs the consideration of the State Government. It is one area in which the attitudinal change of the educated will lead to a multiplier effect and impact on social change in India. The Task Force believes that the State Government and the Universities will address themselves to the issue of gender access and equity sooner than later.

### 10.17.0 Recommendations

1. The Task Force has noted that the Education Policy and the Programme of Action 1986, and the revised Policy document of 1992, clearly provide the policy framework for women's education at all levels with the clear aim of achieving women's equality and assuring gender justice. However, there has been a major gap between our statements and our achievements over the two decades. Clearly, the Government has much work to do to fulfil the provisions of the Policy, adopted by Parliament, provisions which are embedded in the Indian Constitution for equality of both sexes.
2. Given the above situation, there is a need for greater affirmative action and pro-women policies are needed in the higher education system. Unless women hold decision-
making positions, sit in more than token numbers in selection committees, and are, themselves, gender sensitive, change towards equity will be an extremely slow process.
3. The statistics clearly point to the need to develop aggressive affirmative action policies to increase women at all levels - students, teachers and administrators. The Department of higher Education, State of Karnataka, the universities and college managements need to have brainstorming sessions to decide how best to achieve it. Largely, there is selective gender blindness and this needs to be addressed through various means.
4. Moreover, it is very amazing that universities, which are academic institutions and undertake major research projects, are unable to provide qualitative statistics. It is very necessary that the State Government appoint a lead university to prepare the necessary information parameters and provide the database to the universities and the Government for policy development. The State may provide the funds for this activity, which should be put online. The need for statistics, to aid the process of planning, cannot be overstressed.
5. There is a great need to take a new perspective on women's university and colleges to prepare and empower women for the twenty-first century. A thorough review on the lines suggested in the report needs to be initiated at an early date.
6. It is recommended that universities of Karnataka undertake large-scale awareness and sensitisation activity to promote social change, as they have a total enrolment of 5,52,290 as per the UGC data. The Department of Higher Education, Government of Karnataka, should ensure one university department of women's studies with adequate staff and, additionally, access the UGC scheme, at least in a couple of the universities. The Government has more to gain by the impact of this department to improve the position of women and to enhance the goal of equality. Students graduating
with such inputs would have impact on their families of marriage and on their social network, thus having a multiplier effect. It should set up a gender audit programme both in the university and in every department of the Government.
7. The data make evident that there is a dearth of women in decision-making. There is a need to reverse this situation if women friendly policies are to be evolved.
8. The Government of Karnataka could accelerate the process by using available manuals and conducting the programme of training of trainers for its own universities and colleges, either at a university or in its Administrative Staff College, to motivate and prepare women teachers to take up key posts in the system.
9. All selection committees for teaching and non-teaching staff must have women members and they should not be only a token number. As for as possible half of such Committees should have women as chairperson where vice chancellor or another statutory authority is not named. Such women members should have a sensitisation programme so that they understand their role. It should not be presumed that all women are gender sensitive since their nurture in a patriarchal society tends to make them incorporate patriarchal values.
10. Statutes should be amended to ensure women are nominated/elected on the various committees and as chairs. This should be put into effect immediately for the nonstatutory committees. There should be no gender bias on the subject matter of the committee, such as equating committees like finance being only appropriate for men.
11. The State Government could play a major role in establishing part-time scholarships for women graduates to pursue the Ph.D. Women are often withdrawn from education and occupation, after the Master's Degree, as there is cultural pressure for marriage and starting a family. Hence, there is a need to promote their continuing attachment to the academic community to increase the number of women teachers.
12. It has already been pointed out in the statistical presentation that women's hostels are woefully insufficient. Tremendous efforts need to be made to attract women students to close the gender gap as a measure of equity ensured in the Constitution of the country. This needs urgent attention of the State Government.
13. Similarly, women looking for teaching jobs find it difficult to move to a college or a university, where there is a vacancy, if they cannot find safe living quarters. Hence, hostels for women teachers are required so that they do not remain confined to the educational institutions in the area of their natal homes.
14. Empowerment of women will be a reality only if they have a capacity to enter the areas of business, commerce, technology, and the various professions, aside from their own sensitivity to their position as women in a modern democratic social order.
15. Universities and colleges have inadequate infrastructure to meet the requirements of women students and teachers. The UGC already has a special scheme for it and the State Government may supplement it, especially in institutions, which are ineligible for such UGC grants.
16. Every university and college should have an Audit Committee with responsibility to monitor the progress of policies, which are gender friendly. They should develop a database, to be updated periodically, to monitor the progress of the policies. The Committee should have both women and men, who are gender sensitive, to steer the activities and also to obtain feedback from the students and staff.
17. Accessibility to secondary schools in rural areas is a major problem because such schools are not always available in close proximity like the primary and upper primary schools. Parents permit their sons to travel a longer distance by public transport to attend secondary school, but they are not as willing to do so for their daughters due to the fear of a lack of safety. Hence, it would be useful to create multi-user hostel facilities at the district level, and in some of the taluka headquarters, where both secondary schools and college exist. This facility will allow girl students to complete secondary school and even college in the rural areas of Karnataka. Unless we have methods to increase access at lower levels, we will not be able to increase numbers at the higher levels of education. Single women teachers in the secondary school and college, could use such facilities, thus attracting more women teachers.
18. The respondents of the study on women managers were asked to give their suggestions on how to increase the proportion of women in higher education. Their responses are given below with the number of responses in brackets. ${ }^{17}$
a) Introduce reservations for women at all levels (47).
b) Affirmative action in recruitment/inclusion of women teachers in committees (25).
c) Strategies/programmes for sensitisation/capacitybuilding/awareness generation among women (23).
d) Training (16)
e) Greater efforts for women's education in rural areas and introduction of women's studies component in undergraduate/postgraduate courses (10).

[^11]f) Healthy, discrimination-free work environment (8).
g) Specific facilities for women (8).
h) Gender equity policy as well as gender audit of each department (4)
i) Relaxation of age limit (2).
19.

Access and equity will have no meaning if women are constrained to enter educational institutions, which are likely to create unfavourable conditions for study and work. Hence, it is strongly recommended that every university and college in Karnataka be required to implement the recommendation of the UGC on the committee and the type of membership, as also its suggested activities. The University should see that all its affiliated colleges have such committees, including women's colleges, since they have men teachers, administrators and other male staff. The requirement to set up such a Committee is in recognition of the importance of respecting the rights of women in situations where their vulnerability is considerable in unequal power-sharing arrangements, reflecting of male attitudes to women.

The above gives us an idea of the expectations of women academicians.

## CHAPTER XI

## RESERVATIONS IN HIGHER EDUCATION

Education has been considered as a cornerstone in the socio-economic development of a society and nation. When a significant percent of population is illiterate and below the poverty line, the significance of elementary education and higher education becomes even more important. Thus, importance of education was realised by the architects of Indian independence and accordingly, it became a vital and priority sector of planning and development for Central and State Governments.

Although initially, a number of schools and colleges were established, based on the need and demand at the district and taluk headquarters, later, the schools and colleges were established at hobalis and villages also. However, it was realised that the Government alone could not manage this sector entirely. Private participation has existed, even in the times of
the British, for establishing schools and colleges. Government extended them grants, based on a formula, for the running of these private institutions. In recent years, the private sector has been permitted to run colleges totally on an un-aided basis as Government is facing a resource crunch. Thus, the issues of access and equity in education have arisen and need to be addressed in an environment of progressive withdrawal of Government from higher education.

Socio-economic disparities have prevented the poor and marginalised, weaker sections of the society from pursuing education because of the need to earn livelihood and due to lack of affordability. Hence, after independence realising the need for the improvement of the lives of the scheduled castes, scheduled tribes and other backward classes, the founders of the Constitution of India provided for the reservation of seats in educational institutions for $\mathrm{SC} / \mathrm{ST}$ and OBC students. It also provided for the reservation in employment in Government Agencies. The Constitutional provision also provided the framework for the proactive policies and programmes of the Government to provide financial assistance, hostels and learning resources.

The Government of Karnataka has taken the necessary steps to extend all the Constitutional guarantees to the students belonging to the SC, ST and OBCs. During the last 45 years, efforts have been made in this direction, by providing reservations in 8 general Universities (including a University for women exclusively), two Universities of agricultural sciences and one each for technical and medical sciences, 166 Government colleges and 300 private aided colleges apart from more than 500 private unaided colleges. A significant number of Government and private aided colleges are located in rural areas and towns, thus extending their reach to the marginalised. In all taluk head-quarters, the Department of Social Welfare, Government of Karnataka, has made provisions for running hostels for SC,ST,OBC and women students.

Thus, the steps taken by the Government of Karnataka to encourage SC,ST, and OBC students to have access to higher education, apart from exclusively ensuring reservation in admission and employment, may be listed as follows:-

1. Improvement of access due to opening of colleges in the hobalis and Villages.
2) Encouraging SC-ST managements to establish and run colleges.
3) Construction of Hostels and their management.
4) Scholarships and freeships for the students (State and Government of India)
5) Creation of SC-ST Cells in the universities (by the UGC)
6) $\mathrm{SC} / \mathrm{ST}$ amelioration fund to the University.
7) $\mathrm{SC} / \mathrm{ST}$ book bank in colleges and universities.
8) Remedial coaching classes (UGC)
9) Coaching classes for competitive examinations at universities (UGC)
10) Appointment of teachers as student's welfare officers in colleges and universities.

Apart from these steps, the universities have undertaken the following proactive steps:-

1) Reservation in Ph.D. and M.Phil. admission.
2) Research scholarships for SC-ST students.
3) Cash prizes to rank holders and toppers among the SC/ST students in the University examinations.
4) Orientation programmes for SC/ST students about the opportunities in higher education and employment.
5) Co-curricular activities for personality development.
6) Extra board and lodging fund for students, apart from Government scholarships.
7) Establishment of Dr. Ambedkar Hostels and OBC's Hostels in collaboration with the Department of Social Welfare.
8) Establishment of Dr. Ambedkar Chairs and study centres to undertake research and awareness programmes on social justice, empowerment and amelioration policies and programmes.

The Government of Karnataka has taken steps to give representation to SC/ST and OBCs by ensuring reservation among the nominations to statutory bodies of the universities - syndicate, AC, BOA, LIC and so on. It has also ensured the fulfillment of the reservation among staff in college and university systems through filling up of backlog vacancies. Thus, the Government of Karnataka has taken steps to ensure social justice through legislation, executive orders and budget provisions. These steps have resulted in providing access, equity and social justice to the needy of the society in higher education. This is evident by the significant increase in the enrolment of students belonging to SC/ST and OBCs. The statistical data of the last 4 years is given in the Annex of this chapter.

As per 2001 census, Karnataka has a scheduled class category population of 85.64 lakhs, representing 16.20 per-cent of total population. As per 1991 census, the education / literacy level of SC population was $38 \%$ when compared to the general level of $56.00 \%$

The Government of Karnataka has launched a number of schemes for the welfare of SC /ST students. The expenditure for the purpose of welfare was Rs. 115.00 lakhs in first five year plan, the same was 28500 lakhs during $9^{\text {th }}$ plan period. (it is projected to be Rs 60218.27 lakhs during $10^{\text {th }}$ plan). The Department of Social Welfare, Government of Karnataka, is the agency for the implemenation of welfare schemes. During 2003-04, the Department has taken up 34 state level and 31 district level programmes (plan). The Department also has 29 Special (non-plan) programmes during 2003-04. It had extended post matric scholarships to 93,583 students and merit scholarships to 2,888 students. There are 281 SC/ST hostels, accommodating 20,630 students. Apart from these hostels, it also sanctioned aid to 87 private hostels.

A close perusal of the data indicates a significant increase in the number of Government colleges in rural areas, an increase in the enrollment of SC/ST students, especially women, in these Government colleges. However, there is a gradual decline of their enrollment in private colleges. This needs a through review and corrective measures.

The trends in examination results are encouraging. The pass percentage of SC and ST students, which was much lower than that of general category over the last 3 years, is catching up. During 2003-04, the results of SC, ST, OBC and others were $67 \%, 71 \%, 74 \%$ and $74 \%$ respectively, when compared to the overall pass percentage of $72 \%$. Hence, the proactive steps of the Government of Karnataka appear to have helped in the improvement of educational performance of SC, ST and OBC students considerably.
Reservation of Teaching and Non-teaching posts in colleges and Universities

Government of Karnataka, through its Departments of Higher Education and Social Welfare monitors the compliance of reservation for SC/ST in the institutions; especially in the Government Colleges/Private and Aided Colleges and Universities. Although the Government has imposed a ban on direct recruitment, recently it permitted the filling up of posts reserved for SC and ST category identifying the backlog vacancies. Thus Government of Karnataka has taken pro-active steps in ensuring reservation of posts for SC and ST category. Under the policy of reservation on the roaster matrix of 100 points, the Ist vacancy is for SC and $3^{\text {rd }}$ vacancy is for ST category.

However, during the interaction with various stakeholders of Higher Education, the Task Force was given an insight into the inadequacies of the present policies and programmes which fail to reach the poorest of the poor among the SC, ST and OBCs. The stakeholders felt that the poorest of the poor SC, ST groups are yet to get the real benefit of reservation in admission to educational institutions and employment, especially in technical and professional sectors. It was felt that the reservation and benefits are claimed by mostly $2^{\text {nd }}$ and $3^{\text {rd }}$ generation among the SC/ST category. The students of $2^{\text {nd }}$ and $3^{\text {rd }}$ generation are at a higher socio-economic level and at an advantage compared to rural first generation learners. Thus, it was felt that the reservation benefits are yet to reach the poorest of the poor and the real needy and deprived among SC and ST category.

It was brought to the attention of the Task Force that a meritorious SC/ST student/ job seeker is likely to get more than one seat / job and, hence, keeps on jumping from one job to another. It was argued that such a switch over from one job to another is acceptable if it really benefits the individual to move vertically, i.e., from class III to II and then to class I category of posts. Otherwise, the movement within the categories (Class I, II, III and IV) will deprive other meritorious SC/ST students of the benefits.

Hence, it was suggested that reservation benefit be allowed for an individual at entry point for a particular category of posts. If a person belonging to SC/ST category proposes to move over from one job to another in the same class of posts, then the benefit of reservation should not be available to such a switchover. He / she may be considered as general merit candidate for lateral movement.

It was also argued that the concept of elimination of the creamy layer from other backward communities from reservation may also be applied to the SC/ST category to help the poorest of the poor. (Example given was of children of well placed / officers among SC/ST getting the reservation benefit when compared to the children of daily wage earners of SC/ST from villages. These arguments were given by the stakeholders to justify their statements). Hence, they argued in favour of the policies to avoid this anomaly.

Recommendations:

The Task Force suggests the following steps:-

1. Reservation on priority for the first generation learners and later to $2^{\text {nd }}$ and $3^{\text {rd }}$ generation learners in that order.
2. To avoid the benefit of reservation more than once for employment. Any second job in the same class / category of post should be obtained in the general category.
3. The first generation learners be given training and remedial coaching on the follow-ing:-
a) Spoken and written English
b) Personality Development
c) Human Resource Development

- Competence, Skills
- Leadership
- Crisis Management
- Positive Attitude
d) Learning skills: use of library, writing assignments, bio-data, applications, examinations, interview skills and other related skills.

4. The first generation learners be provided with extra financial assistance, other than scholarships which are inadequate.
5. Residential colleges imparting quality education and providing basic amenities may be utilised for the SC/ST students for greater inputs in their development. The environment, learning atmosphere and learning resources of such residential colleges would go a long way in channelising the human resource among the SC/ST into the mainstream of society.
6. A State level model institution may be set up to coach and guide eligible SC-ST students (based on entrance/screening test) to compete in IAS /KAS/ State Level Examination on a full-time basis. The candidate's fees, accommo- dation, food and other costs would need to be met from Government.
7. Continue all the existing facilities for the $\mathrm{SC} / \mathrm{ST}$ students
8. There is a need to monitor the support and facilities given by the Government to SC/ST students, in relation to the outcome and progression to Higher Education and
vocation. The monitoring and performance evaluation of both institutions and students would help in achieving the targets and goals. The proposed State Council of Higher Education may carry out periodic reviews in this regard.

The Task Force appreciates the concern of all the stakeholders of Higher Education and Government of Karnataka for the improvement in the position of SC/ST students. The Task Force strongly recommends a review of the present blanket benefits to all which has resulted in further neglect of the poorest of the poor among the SC/ST students and continued garnering of the facilities by only a few. This issue needs consideration and evolving a practical solution.

## Status of physically challenged/disabled students in higher education:

Since there has not been a scientifically acquired census data on the physically handicapped, experts have stated that, approximately about $10 \%$ of our population falls under the category of some form of disability, out of which around $2 \%$ are the people with mental disability. The 2001 census data, which attempted to provide this information, has been challenged by experts. No matter what is the size of this population, students have become aware of their rights, and there is a demand for their right to services. Segregation of the disabled leaves us unaware of the realities of disabilities and their real potentials.

Even reading material in this regard is not to be seen in our college syllabi. In this context, integration at the school level will itself be beneficial for the society. At the college and University levels, there is no segregation, as those with disability join the mainstream. A great thrust has already been made generally in the field of education in recent years, especially efforts to see every individual becomes literate which has gained a lot of momentum. In this context, the field of special education is still in its infancy as far as mainstreaming and integrated education are concerned.

A developing society has to be sensitive to the needs of the disabled. Cognitive adjustments can change the way disabled people function, and the attitudes they encounter. "The Persons with Disabilities Act, 1995"(PDA) is the Indian attempt to bring about change. The salient features of the statutes seek to provide for education, employment, affirmative action, full participation, non-discrimination, and research and manpower development.

All efforts must be made to disseminate information on the rights of the disabled. There are a few pressure groups and advocacy groups actively working towards the implementation of this Act. The voice of the disabled in the society has to become stronger. The participation of the disabled is imperative in the movement for changing social attitudes.

The Governments both at the Centre and State level have initiated steps to provide facilities to the physically challenged students. The UGC and other nongovernment organisations have also addressed this issue. Some of those initiatives are;

1. Reservation for the physically challenged ( 3 percent) for admission and employment as required by the Government of India.
2. Construction of ramps and proper infrastructure facilities in the College/ University. (UGC provides special assistance for this initiative. It provides for special equipment such as the reading equipment for the blind.)
3. Scholarships are being provided to these students by the Government of India, through the State Governments. (Monthly stipend of Rs 200 for under graduate students 300 Rs for PG, Medical, Engineering etc.)
4. Providing in case of blind students; a reader for their studies and a writer at the time of examinations, provision of extended time; a graduate who is not from the same discipline as a writer, is the facility provided in recent times.
5. The UGC has a scheme to start degrees in special education in the Universities for teaching special categories of the handicapped. This scheme needs to be implemented by the Universities in Karnataka.

Greater integration in colleges will reduce the negative reception about abilities of the disabled. Society needs solutions to the problems that it sees. It is really upto the institutions to take the initiative, and institutions that have already led the way in successfully integrating special and disabled children need support and encouragement.

Orientation and counseling plays an important role in the uplift of the physically challenged students, their family members and even the teachers. Hence, efforts may be made to initiate orientation, and counseling at the institutional level.

RECOMMENDATIONS:- (FOR physically challenged students).

1. Enhancement of scholarship (in number and amount) for these students at college level based on the present day needs.
2. Construction of Ramps in all the colleges utilizing the UGC assistance.
3. Special Remedial coaching in Soft Skills Developments.
4. Starting of vocational courses suitable to physically challenged students.
5. MOU with the Agencies /National Rehabilitation Council to utilize the training facilities.
6. Guardianship/Mentorship and Counseling at all colleges.
7. Sports meet, especially for physically challenged students.
8. Enhancement of incentives and library facilities.
9. Provision of free Computers.

## Annex xi. 1

Government Of Karnataka
Department of Collegiate Education
STATEMENT SHOWING THE DEGREE STUDENT STRENGTH IN GOVERNMENT
COLLEGES

| YEAR | SC |  | $\begin{gathered} \hline \text { TOTA } \\ \text { L } \\ \text { SC } \\ \hline \end{gathered}$ | ST |  | Total ST | General |  | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M | F |  | M | F |  | M | F |  |
| 2002-03 | 9342 | $\begin{gathered} 584 \\ 5 \end{gathered}$ | 15187 | $\begin{gathered} 298 \\ 5 \end{gathered}$ | $\begin{gathered} 153 \\ 4 \end{gathered}$ | 4519 | 39045 | 38234 | 77279 |
| 2003-04 | 10457 | $\begin{gathered} 670 \\ 6 \end{gathered}$ | 17163 | $\begin{gathered} 320 \\ 9 \end{gathered}$ | $\begin{gathered} 165 \\ 2 \end{gathered}$ | 4861 | 45277 | 41684 | 86961 |
| 2004-05 | 11457 | 868 | 20146 | 334 | 176 | 5110 | 48679 | 43234 | 91913 |



Student Strength Trend (Govt Colleges)


STATEMENT SHOWING THE DEGREE STUDENT STRENGTH IN AIDED COLLEGES

|  | SC |  | Total SC | ST |  | Total ST | General |  | TOTA L |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M | F |  | M | F |  | M | F |  |
| $\begin{aligned} & \text { 2000- } \\ & 01 \\ & \hline \end{aligned}$ | 21695 | 10600 | 32295 | $\begin{gathered} 617 \\ 1 \\ \hline \end{gathered}$ | 805 | 6976 | 82098 | 77736 | 159834 |
| $\begin{aligned} & \text { 2001- } \\ & 02 \\ & \hline \end{aligned}$ | 17967 | 9640 | 27607 | $\begin{gathered} 419 \\ 6 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 372 \\ 3 \\ \hline \end{gathered}$ | 7919 | 73486 | 44466 | 117952 |
| $\begin{aligned} & 2002- \\ & 03 \\ & \hline \end{aligned}$ | 16632 | 8567 | 25199 | $\begin{gathered} \hline 391 \\ 7 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 265 \\ 3 \\ \hline \end{gathered}$ | 6570 | 130081 | 103678 | 233759 |
| $\begin{aligned} & 2003- \\ & 04 \\ & \hline \end{aligned}$ | 14881 | 9193 | 24074 | $\begin{gathered} \hline 362 \\ 5 \\ \hline \end{gathered}$ | $\begin{gathered} \hline 398 \\ 4 \\ \hline \end{gathered}$ | 7609 | 129461 | 109706 | 239167 |
| $\begin{aligned} & 2004- \\ & 05 \end{aligned}$ | 14231 | 9034 | 23265 | $\begin{gathered} 397 \\ 8 \end{gathered}$ | $\begin{gathered} 412 \\ 3 \\ \hline \end{gathered}$ | 8101 | 134628 | 114765 | 249393 |







Government Of Karnataka Department of Collegiate Education STATEMENT SHOWING GIRLSTUDENT STRENGTH IN GOVT COLLEGES

|  | SC | ST | General |
| :--- | :---: | :---: | :---: |
| $2002-03$ | 5845 | 1534 | 38234 |
| $2003-04$ | 6706 | 1652 | 41684 |
| $2004-05$ | 7612 | 1732 | 42234 |



STATEMENT SHOWING GIRL STUDENT STRENGTH IN AIDED COLLEGES

|  | SC | ST | General |
| :---: | :---: | :---: | :---: |
| $2002-03$ | 8425 | 3145 | 99876 |
| $2003-04$ | 9193 | 3984 | 109706 |
| $2004-05$ | 9961 | 4823 | 119536 |



|  |  |  |  |  |  |  | Gen | ral |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| YEAR | A | P |  | A | P |  | A | P |  |
| 2002-03 | 2990 | 2076 | 69 | 276 | 196 | 71 | 6007 | 4698 | 78 |
| 2002-03 | 2990 | 2076 | 69 | 276 | 196 | 71 | 6007 | 4698 | 78 |
| 2003-04 | 3189 | 2235 | 70 | 301 | 226 | 75 | 6624 | 5245 | 79 |
| 2004-05 | 3388 | 2394 | 70 | 326 | 256 | 78 | 7241 | 5792 | 79 |



|  | SC | ST | GENE <br> RAL |
| :---: | :---: | :---: | :---: |
| $2002-03$ | 69 | 71 | 102 |
| $2003-04$ | 70 | 75 | 107 |
| $2004-05$ | 70 | 78 | 111 |





Department of Collegiate Education

|  | Category | $\mathbf{2 0 0 2 - 0 3}$ | $\mathbf{2 0 0 3 - 0 4}$ | $\mathbf{2 0 0 4 - 0 5}$ |
| :--- | :--- | :---: | :---: | :---: |
| Pass Percentage | SC | 58.41 | 67.07 | 70.13 |
|  | ST | 51.23 | 71.27 | 75.23 |
|  | OBC | 64.72 | 74.13 | 77.34 |
|  | Others | 67.34 | 76.34 | 78.87 |
|  | Total | 66.34 | 74.79 | 77.34 |


| No. of Students | SC | 3342 | 5475 | 6745 |
| :---: | :--- | :---: | :---: | :---: |
|  | ST | 1436 | 1764 | 1968 |
|  | OBC | 23678 | 28643 | 31345 |
|  | Others | 15453 | 14364 | 15345 |
|  | Total | 43909 | 50246 | 55403 |



NO Of Students Degree Completed



[^0]:    ${ }^{1}$ Includes 37,073 seats in colleges affiliated to VTU and 2,077 seats in other colleges.

[^1]:    ${ }^{2}$ The World Bank. Constructing Knowledge Societies: New Challenges for Tertiary Education, The World Bank (Washington): 2002
    ${ }^{3}$ C.N.R. Rao. "Saving Science for our future -II", The Hindu, March 21, 2003.

[^2]:    ${ }^{4}$ World Bank. Higher Education: The Lessons of Experience, The World Bank (Washington): 1994: p.12.

[^3]:    ${ }^{5}$ Prof. Hanna Gray, President , University of Chicago

[^4]:    ${ }^{6}$ Edward Deming- $1{ }^{\text {st }}$ Principal( 14 Principles of Quality)

[^5]:    ${ }^{7}$ Data received from the Universities of Karnataka 2004
    ${ }^{8}$ UGC News -May 2004

[^6]:    ${ }^{9}$ National Policy on Education - 1986, Ministry of Human Resource Development, Government of India (Department of Education), New Delhi, May 1986, p. 6

[^7]:    ${ }^{10}$ National Policy on Education 1986: PROGRAMME OF ACTION, Government of India, Ministry of Human Resource Development, New Delhi, November 1986, p. 52
    ${ }^{11}$ UEE stands for Universal Primary Education

[^8]:    ${ }^{12}$ Programme of Action 1992, National Policy of Education, Revised 1992, Government of India, Ministry of Human Resource Development (Department of Education). Reprinted: University Grants Commission, New Delhi, p. xiii. ${ }^{13}$ UGC Higher Education, Annual Report, 2000-2001, UGC Higher Education, University Grants Commission, New Delhi.

[^9]:    ${ }^{14}$ Database: Women in Management in Higher Education, Manual VII, Prepared by Professor Pam Rajput, Panjab University, Chandigarh, for University Grants Commission, New Delhi, January 2000.

[^10]:    ${ }^{15}$ Pam Rajput, Data Base: Women Managers in Higher Education, Op. Cit.
    ${ }^{16}$ Ibid.

[^11]:    ${ }^{17}$ Ibid.

