DEVELOPMENT OF HIGHER EDUCATION AND RIESEARCH IN THE UNIVERSITIES

(1980-1985)

UNIVERSITY GRANTS COMMISSION

Feb. 1986

Printed and published by Prof. S.K. Khanna,
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New Delhi-110002. Printed at Paramount Publishing House,
Shanker Market, Connaught Circus,
New Delhi-110001.

CONTENTS

I. The Origin and Role of the University Grants Commission

1.01 The University Grants Commission was set up in 1956 under a Central Act with a comprehensive role "to take in consultation with the universities or other bodies concerned all such steps as it may think fit for the promotion and co-ordination of university education and for the determination and maintenance of standards of teaching, examination and research in universities."

1.02 There are two types of universities in the country i.e. Central and State universities. Central universities are set up under an act of Parliment and State universities by State Legislatures. The rapid growth ofuniversities without proper infrastructure in the States became a matter ofconcern for the University Grants Commission. It, therefore, laid down guidlines for the establishment of new universities, which provided that before a State Government formulates a proposal for the establishment of a new university, it should (i) undertake a survey of the existing facilities for higher education in the state (ii) associate UGC from the very beginning of the proposal and (iii) have sufficient data in the prescribed proforma indicating the existing position and justification for the need for an additional university.

1.03 The UGC Act was amended in 1972 with a view to regulating the unplanned proliferation of universities by adding a proviso which said, "No grant shall be given by the Central Government, the Commission, or any other organisation receiving any funds from the Central Government, to a university which is established after the commencement of the UGC (Amendment) Act, 1972, unless the Commission has, after satisfying itself as to such matters as may be prescribed, declared such university to be fit for receiving grants". As a result of this proviso, the state governments started consulting the UGC before establishing new universities.

1.04 Another important power invested in the Commission under the Act is to enquire into the financial needs of the universities, to allocate and disburse grants for the maintenance and development of universities and to recommend to any universities the measures necessary for the improvement of university education and to advise the university

concerned upon the action to be taken for the purpose of implementing such recommendations.

1.05 The Commission has, under the amended Act referred to above, now got the power to allocate and disburse, out of the funds of Commission, grants for maintenance to the Universities, other than Central universities, for any specified activities of such universities, or for any other general and specified purpose.

1.06 The University Grants Commission Act was further amended in September, 1984. The two main features of the amended Act which came into force with effect from 1.10.1984, are (1) to enlarge the functions of the Commission so as to enable it to establish, in accordance with the regulations made under the Act, institutions for providing common facilities, services and programmes for a group of universities or for the universities in general and maintain such institutions or provide for their maintenance by allocating and disbursing out of its funds such grants as it may deem necessary and (2) provision has been made to empower the UGC to determine the scales of fees charged by colleges and to deny grants to and de-recognise the college, which violates the provision so that it cannot send up any candidate for the examinations.

1.07 A particular mention should be made here of the country's nearly 5,500 affiliated Colleges, in which the vast majority of our university level students study, having been created more for political and regional considerations rather than to meet the genuine higher education needs of their respective communities. Many of these institutions are extremely small in size, lack the minimum facilities needed to develop viable instructional programmes, and pose a constant threat to the quality and standards of higher education. Unfortunately the Commission has no say in the establishment of new colleges or in their affiliation to a university. Although a committee is currently preparing a model grant-in-aid code for colleges including the conditions of affiliation, much would depend on their acceptance by State governments and universities. It needs to be emphasised that unless the establishment of new colleges is properly regulated by the University Grants Commission, it will not be possible to consolidate facilities and strengthen standards in the existing colleges; nor will it be feasible to bring about a closer matching of higher education to the manpower needs of our economy.

II. Guidelines for the Sixth Plan Programmes

2.01 Developments in the field of higher education and research during the period 1980-81 to 1984-85 have to be viewed in the context of two important/policy documents: (1) Policy Frame on development of higher education and (2) Approach Paper for the development of universities and colleges in the Sixth Plan period.

The Policy Frame outlined the main achievements and failures of the entire system of education in India from the primary level to the university, and proposed a strategy with special emphasis on the concept of extension, social change, equalisation of opportunity, mitigation of regional imbalances, maintenance of standards and reevance of courses of study and research programme. The emphasis in the Approach Paper has been on the improvement of quality and stengthening of existing facilities instead of unplanned expansion of the tetiary sector.

2.02 The Commission formulated its programmes and guidelines for the universities for preparing their Sixth plan proposals keeping in view the objectives mentioned in the above mentioned documents and the availability of resources.

The following points were particularly emphasised:

(i) The development assistance to the universities during the plan period would be related to the stage of their growth, keeping in view the need for the qualitative improvement and development of viable schools of teaching and research in the selected areas and to remove as much as possible regional imbalances in the development of facilities for higher education. In view of the constraint of resources resulting from the transfer of a higher proportion of funds meant for higher education to the Sate Governments, the universities were asked to identify only their citical needs in order of priority.

(i) Universities which have already reached a critical size were advised to exercise utmost restraint in expansion of enrolment keeping a broad balance of 3:1 between the undergraduate and postgraduate stages. It was suggested that demands for additional enrolments in undergraduate courses should as far as possible be met through correspondence courses, extended/evening classes, and by allowing students to appear as private candidates.

(iii) Universities should give priority to programmes for strengthening existing postgraduate departments in regard to staff-both academic and technical supporting personnel-research facilities, workshop and library services. The consolidation of such facilities should be given priority over opening of new departments, or embarking on further specialisation in them.

(iv) On the basis of profile of individual departments prepared by the subject panels, the universities were to be grouped under three categories viz., well-developed universities, developing universities and universities which have the potential to reach the well-developed stage in the next five years. The main attempt would be to see that (a) in the case of well-developed departments, the general plan assistance is utilized to a very minimum level and recourse is taken instead to obtain assistance for their activities from the various quality improvement programmes and research support available from the Commission; (b) to help developing departments being their facilities and activities to an optimum level essential for maintenance of proper standards; and (c) to identify from amongst the developing departments a few that with some critical inputs, have the potential to become fully developed over the next five years. A cluster of such departments could be considered for intensive development at an appropriate stage during the plan period as envisaged in the Approach Paper.

(v) It was also visualised that developed universities with strong departments would establish relationships by which they could help the academic growth of less developed universities and departments. Efforts would also be made to bring about greater coordination amongst the universities within the same states for purposes of collaboration, avoidance of duplication, setting up of non-viable departments and to encourage student mobility to institutions with better or more adequate facilities.

(vi) The strategy to be adopted for the development of colleges needed their classification according to the following criteria:

(a) Colleges which qualify for support on the basis of minimal eligibility conditions with regard to enrolment would receive basic grants for purposes of augmenting their library services by purchase of books, journals, etc., improvement of laboratory facilities required for undergraduate instruction, and for faculty improvement to enable the teachers from the colleges to improve their competence as teachers by participation in a variety of programmes, such as, refresher courses,

workshops or workings towards M.Phil. with the help of teacher fellowships. These basic grants would be payable by the Commission on 100% basis without requiring any matching contribution from the college or the state government.

(b) Development grants would be available, over and above the basic grants, to colleges which satisfy the prescribed qualifying criteria of enrolment and staff-student ratio based upon the number of permanent teachers and showing some potential and capability to function in a viable manner, maintaining adequate standards of instruction.

(c) Assistance for development of postgraduate departments in colleges would be continued on the basis followed during the fifth plan period. Normally only those departments which fulfil the norms laid down by the Commission or could be brought to those standards in the plan period would qualify for such assistance.

(d) Assistance would be available to colleges for taking up quality improvement programmes, such as, COSIP, COHSSIP; support for research projects, lead colleges and other special programmes, on a selective basis. Special consideration would be given to the development of colleges in educationally backward districts, so as to bring their facilities and standards to an optimal level.

III Developments during the Sixth Plan

3.01 Expansion of Institutions/Enrolment

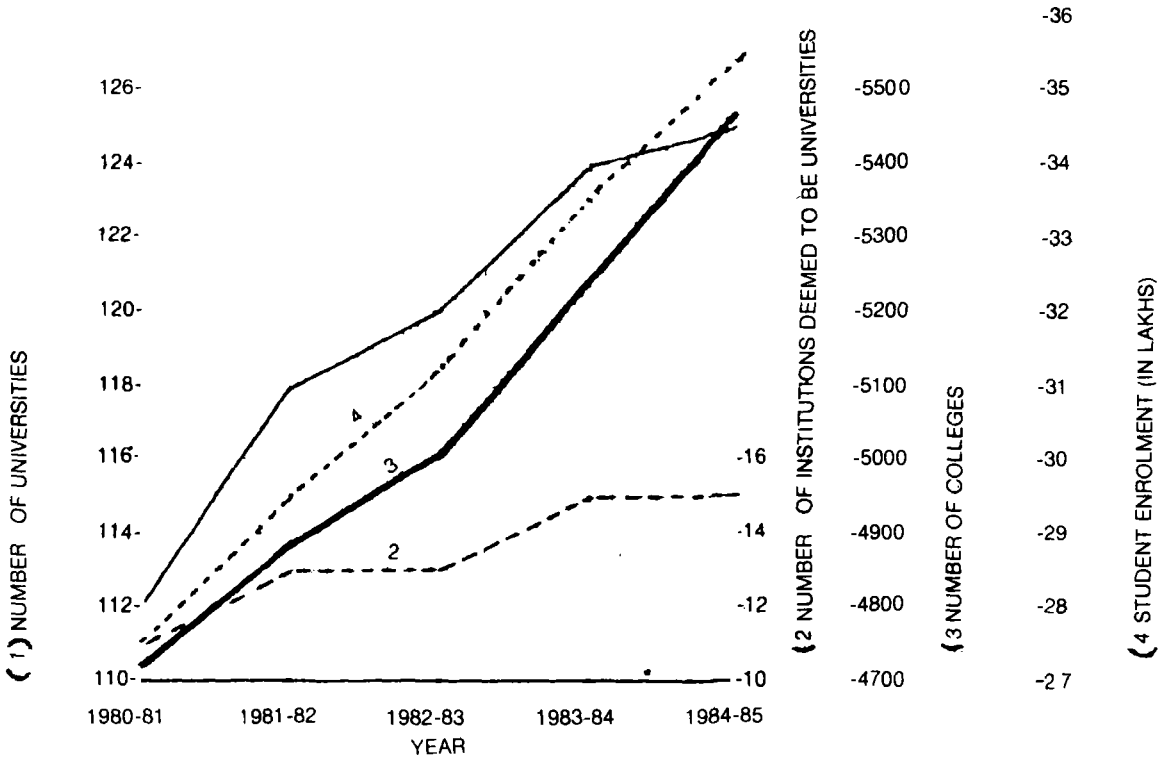
There has been a steady increase in the number of universiitities, institutions deemed to be universities and colleges during the peririod 1980-81 to 1984-85 from 112, 11 and 4,722 to 125, 15 and 5i,4482 respectively. This shows that 13 new universities, 4 deemed tto be universities and 760 colleges were set up during this period. Yearwwise break-up of the institutions is as follows:-

Year	No. of universities	No. of deemed to be universities	Noı. ofbf Colleggees
1980-81	112	11	4,7222
1981-82	118	13	4,8866
1982-83	120	13	5,01.22
1983-84	124	15	5,2466
1984-85	125	15	5,4822

3.02 The number of students enrolled in universities and colleges hhas also gone up during the period under reference. As against an enrolmeent of 27,52,437 in the year 1980-81, there were 35,54,163 students in 19884-85. This shows an increase of 8,01,726 students (29.1%) during the fifive year period under review. Year-wise students enrolment and percenttaage increase over the preceding year were: 1980-81, 27,52,437 (3.9%); 19881-82,29,52,066 (7.3%); 1982-83, 31,33,093 (6.1%); 1983-84, 33,59,3323 (7.2%) and 1984-85, 35,54,163 (5.8%).

3.03 The average growth rate of enrolment during the decade 1975-76 to 1984-85 was 4.2% per annum which was substantially lower than the average growth rate of enrolment of 9.6% during the previous decaade 1965-66 to 1974-75. During the present five year period (1980-811 to 1984-85), the average annual compound growth rate of enrolmemt wwas 6.6%. However, there were wide deviations from this average rate a moong different States. Bihar for instance, had a growth rate of 17.4% during the period, which is nearly three times the all-India average. On the otther extreme, Jammu and Kashmir had a growth rate of a mere 0.3%. NNine States had average annual compound rate of growth lower than the all-India average. Four States recorded double or nearly double the averaage

GROWTH OF INSTITUTIONS AND ENROLMENT (UNIVERSITY LEVEL)
(1980-81 to 1984-85)



growth rate. These are Manipur (13.5), Assam (12.9), Andhra Pradeesh (12.5) and Himachal Pradesh (11.8).

3.04 Three general comments may be made about the statistics given above. Firstly, the problems of higher education in India have become more and more complex with the passage of time and the Commission has now to deal with the development of a very large number of universities and colleges.

3.05 Secondly, it seems that the efforts made by the Commission to regulate the growth of higher education in keeping with the needs of the country for trained manpower with appropriate levels of professional training, skills and specialization have started bearing fruit. This regulation was guided by the following six considerations adopted earlier by the Commission:

(a) Regulation of admission in order of merit keeping in view the intake capacity of each department or a college without affecting the standards.
(b) Checking the establishment of new universities and colleges except in backward areas where also it may be considered only after a survey of its educational needs.
(c) Vocationalization of the secondary level of education and its impact on university admissions.
(d) Restructuring of courses of study at the first degree level.
(e) Provision of facilities for greater enrolment through correspondence courses; and
(f) Equalization of educational opportunities for weaker sections of the society.

3.06 The Commission had also suggested that the question of delinking of degrees from jobs should be considered by the Central government. The matter is now under the active consideration of the Government.

3.07 The last comment to be made here is that although enrolments at the level of higher education as a proportion of the relevant age-cohort will admit of considerable further expansion, several constraints of a practical nature such as limited resources, slow rate of growth of employment opportunities and the need to maintain reasonably satisfactory standards have been paramount in determining the Commission's approach to the growth-versus quality issue. In the main the Commission's efforts have been in the direction of seeking the right balance between these two requirements.

Teaching Staff

3.08 In 1984-85, there were 51,372 teachers in the University departments and university colleges compared to 39,964 in 1980-81 which represents an increase of 11,408 teachers i.e. 28.5%. Out of 51,372 teachers, 5,127 were professors (4,123 in 1980-81), 12,042 readers (7,900 in 1980-81), 32,069 lecturers (25, 758 in 1980-81). and 2,134 tutors/demonstrators (2,183 in 1980-81). Thus the proportion of senior teachers viz. professors and readers to the total teaching staff has gradually gone up from 30.1% in 1980-81 to 33.4% in 1984-85; presumably because of the new positions sanctioned by the Commission during the fifth and sixth plan periods.

3.09 The teaching staff in the affiliated colleges totalled 1,77,313 in 1984-85, which included 20,860 senior teachers, 1,49,777 lecturers and 6,676 tutors and demonstrators compared to 1,53, 377 teachers (16,343 senior teachers, 1,27,952 lecturers and 9,082 tutors and demonstrators) in 1980-81. This shows an increase of 23,936 teachers (15.6%) during the five year period under review. The proportion of senior teachers also went up from 10.7% in 1980-81 to 11.8% in 1984-85.

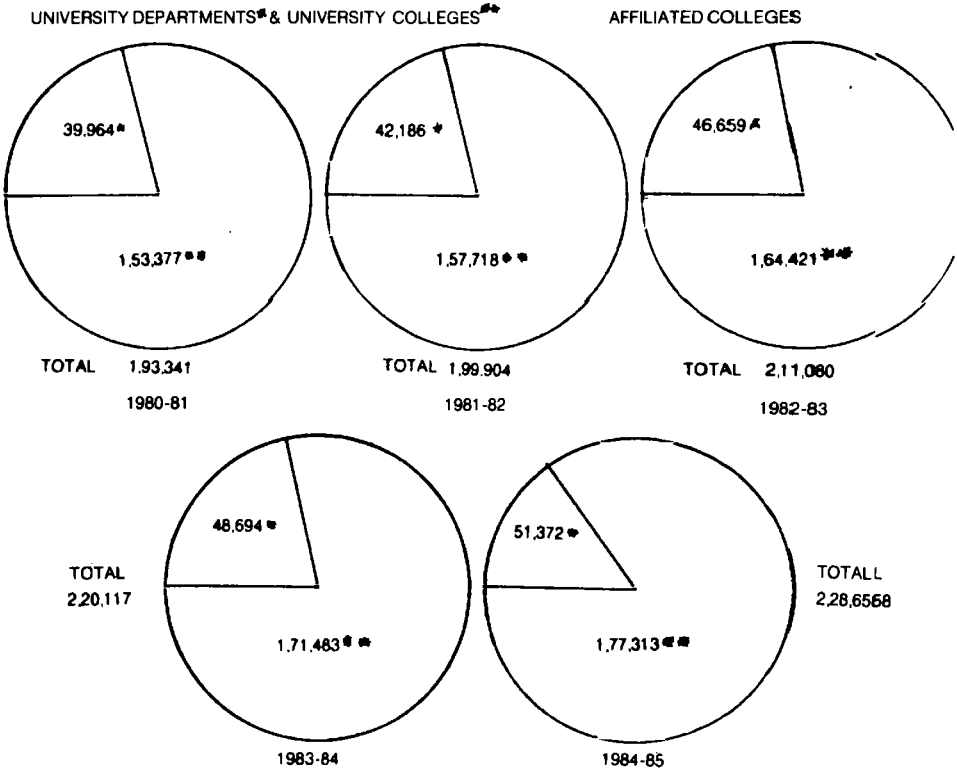
Stage-wise, Faculty-wise and Institution-wise Enrolment

3.10 Stage-wise enrolment from 1980-81 to 1984-85 indicates only marginal variations in respect of percentage enrolment at the undergraduate and postgraduate/research levels. During this period, enrolment at the undergraduate stage varied between 87 to 88 per cent of the total enrolment, while postgraduate and research enrolment had been in the vicinity of 10-11 per-cent. Diploma/certificate courses account for the remaining enrolment. There has been slight increase in the enrolment at the undergraduate level as a percentage of the total enrolment during 1984-85 as compared to 1980-81.

3.11 Faculty-wise distribution of students enrolment from 1980-81 to 1984-85 shows that enrolment in the faculty of arts (including oriental learning) as percentage to the total enrolment showed an increasing trend and rose to 40.0 per cent in 1984-85 after four successive years of gradual decline since 1980-81 that is 40.5 in 1980-81, 40.3 in 1981-82, 40.2 in 1982-83 and 39.1 in 1983-84.

On the other hand, enrolment in the faculty of commerce as percentage of the total recorded a fall for the first time in 1984-85 (21.3%) after four years of gradual rise viz. 20.1% in 1980-81, 21.3% in 1981-82, 21.4% in 1982-83 and 22.4% in 1983-84. In the faculty of science; percentage enrolment has been steady in the range of 19.4 to 19.9%

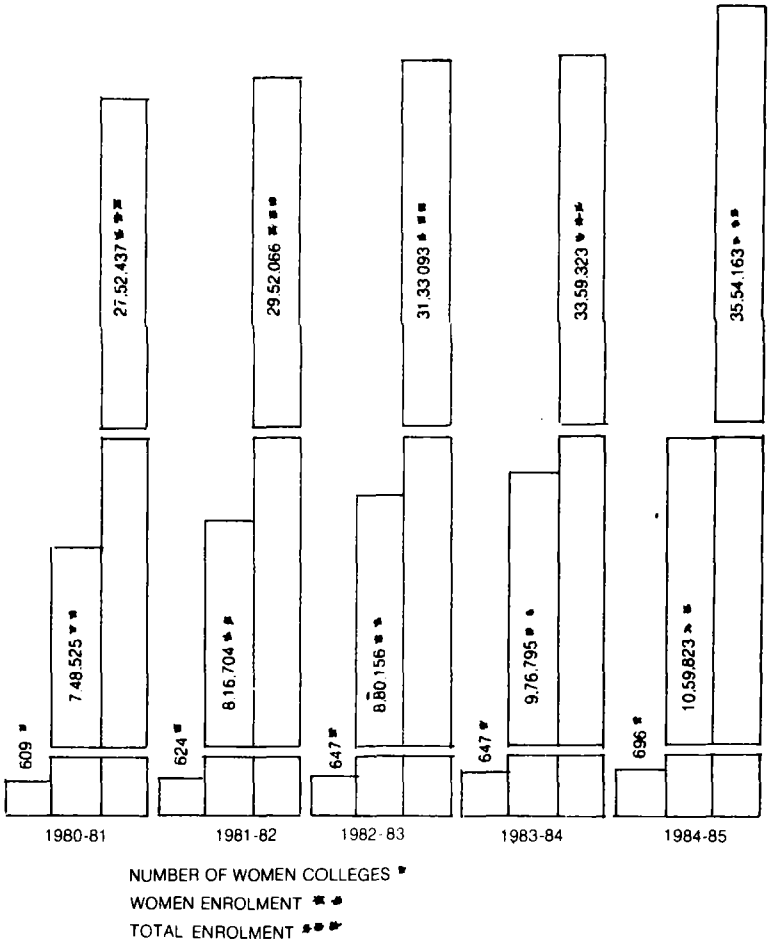
TEACHING STAFF IN
UNIVERSITY DEPARTMENTS, UNIVERSITY COLLEGES AND AFFILIATED COLLEGES
(1980-81 to 1984-85)



* INCLUDES PROFESSORS, READERS, LECTURERS AND TUTORS/DEMONSTRATORS
** INCLUDES PRINCIPALS/SENIOR LECTURERS/READERS/ASSISTANT PROFESSORS/TEMPORARY LECTURERS AND TUTORS/DEMONSTRATORS

WOMEN COLLEGES AND ENROLMENT
IN HIGHER EDUCATION

(1980- to 1984-85)



during the period 1980-85. Enrolments trends in other professional faculties, indicate variations only of a marginal nature.

3.12 A significant development during the period under reference has been that enrolment in affiliated colleges (private and government) as percentage of the total enrolment has come down marginally to 83.2 in 1984-85 as compared to 83.5 in 1980-81. In terms of their contribution to the stage-wise enrolment during 1984-85, affiliated colleges account for 87.8 percent of the total enrolment at the undergraduate stage (88.6% during 1980-81) and 55.7 per cent at the postgraduate stage (54.2% during 1980-81). At the research level they constitute 14.5% of the total enrolment (13.9% during 1980-81) and at the diploma/certificate level 40.8 per cent (43.6 per cent during 1980-81).

Establishment of New Colleges

3.13 The Commission had earlier advised the state governments to check the proliferation of colleges except in backward areas or when necessary to meet genuine educational needs as indicated by a properly co-ordinated state-wise survey. It seems, however, that the advice has gone largely unheeded. While during the five year period 1974-79, the number of newly established colleges was 290 or 50 per year, during 1980-85 it was 760 or 152 per year. Out of these 760 new colleges, Maharashtra alone accounted for an increase of 202. Other States which recorded substantial additions to the number of colleges during the period were, Bihar (107), Karnataka (97), Orissa (95), Andhra Pradesh (66) and Madhya Pradesh (66).

3.14 Faculty-wise, the maximum increase during the period was in arts, science and commerce colleges (517) which constituted 68% of the increase of total number of colleges.

Women's Education

3.15 Educational opportunities for women in the sphere of general and professional education at the University level have expended appreciably in recent years. The highly specialised and professional courses offered by the universities are no longer a male prerogative as more and more women are now competing for admission to these courses.

3.16 There has been a gradual increase in the number of women's colleges during the five year period 1980-85. The number was 577 in 1979-80 and rose to 609 (5.54% increase over the previous year) in 1980-81, to 624 (2.46% increase) in 1981-82, to 647 (3.68% increase)) in

1982-83, to 674 (4.17%) in 1983-84 and to 696 (3.43%) in 1984-85. The overall increase in the number of such colleges was 119 colleges (20.6%) at the and of 1984-85, over that during 1979-80.

3.17 The total enrolment of women in universities and colleges was 1059,823 during 1984-85 compared to 7,89,042 in 1979-80, showing an increase of 2,70,781 (34.3%). The percentage of women to the total enrolment also increased from 26 to 29.8 during the period under review.

IV Maintenance and Co-ordination of Standards.

Promotion of Excellence

4.01 The strategy adopted by the Commission for the maintenance and co-ordination of standards of teaching, examination and research in higher education as laid down in its Act is one of selective approach and of concentrating on essential growth points instead of spreading the resources too thinly over a wide area. The Commission had earlier initiated specific programmes having a direct and significant bearing on standards. These programmes were particularly related to special assistance for selected departments in sciences, humanities and social science subjects and of recognising certain departments as 'Centres for advanced study' with the object of strengthening postgraduate teaching and research. It was visualised that these centres would function on all-India level by attracting teachers and scholars from all over the country.

4.02 Under this scheme, the Commission gives active support and substantial assistance to promising university departments to enable them to come up to requisite standards. Such assistance is provided initially for a period of 10 years and further assistance is given only after ascertaining satisfactory progress.

4.03 The number of centres of advanced study has increased from 23 (14 science subjects and 9 in humanities and social sciences) in 1979 to 29 (19 in science subjects and 10 in humanities and social sciences) on March, 31, 1985.

4.04 The parallel scheme of providing special assistance to a limited number of selected department (DSA), aims at enabling these departments to develop their existing potentialities and become active centres of teaching and research in selected areas and also attain the level of centres of advanced study in course of time.

4.05 There were 92 departments of special assistance (65 in science subjects and 27 in humanities and social sciences) on March 31, 1985 compared to 55 (33 in science subjects and 20 in humanities and social sciences) in 1979. A significant development during this period has been that language departments were selected for special assistance for the

firsttime and now a number of regional languages are covered under the scheme.

4.08 In addition to the above programmes, the Commission also extends research support to selected university departments. The number of departments receiving such support as on March 31, 1985 was 47.

Improvement of Teaching & Research in Science, humanities and Social Sciences

4.07 The Commission had launched the College Science Improvement Programme (COSIP) with a view to bringing about qualitative improvement in the teaching of science at the undergraduate level through integrated and simultaneous improvements in the subject matter, methods of instruction, syllabi, curricula, laboratory/exercises, workshops, library and teaching material.

4.08 Encouraged by the success of COSIP, the Commission later decded to extend this programme to humanities and social sciences. The college humanities and social sciences improvement programme (COHSSIP) aims at bringing about improvements in the teaching of humanity and social sciences at the undergraduate level with particular reference to (a) adoption of new teaching methods, (b) extension of library services, (c) introduction of special courses,(d) inter-disciplinary programmes, (e) adoption of various measures of examination reforms, (f) remedial teaching; and (g) field/project work etc.

4.09 The number of colleges implementing COSIP and COHSSIP has gone up in a spectacular manner in view of the special emphasis of the Commission on this scheme as an important measure for improvement of standards in the collegiate sector. As on March 31, 1985 COSIP was being implemented in 237 colleges and 40 university departments and COHSSIP in 400 colleges and 16 university departments as compared to 171 colleges and 40 departments under COSIP and 148 colleges and 15 departments under COHSSIP in 1980-81.

Other Measures to Improve Quality

4.10 Special mention may be made of the effort of the Commission to revise guidelines of various schemes such as Publication of these and learned works, assistance to colleges, unassigned grants, and declaration of institutions as those deemed to be universities. In regard to deemed universities, it may be pointed out that the Central Government has been vested with the power to declare, on the advice of the University,

Grants Commission, an institution of higher learning to be one deemed to be a University. The main purpose of this measure is to bring such institutions under the purview of the U.G.C. which for historical and other reasons are not universities, but are doing university level work of a high standard in an academic field. The Commission has issued revised guidelines to consider proposals for declaring an institution as a 'deemed' university. These guidelines stipulate that an institution to be regarded as a deemed university shall generally be (i) an institution engaged in teaching and research in chosen fields of specialisation and one that has maintained the highest standards; (ii) in the field of specialisation, it shall have a very high standard and is making a distinct contribution to university educational system including innovative undergraduate programmes and significant extension activity, (iii) the granting of a deemed to be University status will further enhance the development of the area of specialisation, teaching and research activities in that institution; and (iv) the institution has the necessary financial resources, viability and management capable of contributing to university ideals and traditions.

4.11 The Commission has also framed, after several years of consultation with the state governments and universities, regulations for the minimum standards of instruction for grant of any degree by a university. The regulations for the award of the first degree provide that no student shall be eligible for admission to the first degree course, unless he has successfully completed 12 years schooling. The duration of B.A./B.Sc. or B.Com (Hons.) course will be three years; the degree awarded at the end of 2 years may be designated as B.A./B.Sc or B.Com. degree. No student shall, however, be eligible to seek admission to the master's course, unless he has successfully pursued the first degree course of three years duration. These regulations also prescribed the minimum number of working days, measures of examination reform, qualifications of teachers, norms for infrastructural facilities etc. Similar regulations have also been framed in respect of first degree course under non-formal education. The Commission hopes that these regulations will bring about a certain degree of uniformity in standards and remove the confusion resulting from varying nomenclature and duration of degrees.

A National Level Test

4.12 Another important measure taken by the Commission for the improvement of standards of research during the period under review was the introduction of a national level test (from August, 1984) for the

award of Junior Research Fellowships allocated to the universities for major research projects. The central aim of this test is to overcome the problems of comparability by bringing uniformity in standards of evaluation in different universities and to ensure that only the best deserving students are selected for the award of fellowships.

4.13. The first national level test for the award of junior research fellowships was held in August, 1984 in 12 subjects viz. Physics, Chemistry, Mathematics, Life Sciences, Geology, Geography, Economics, Political Science, Philosophy, Psychology, Sociology and History. The second test was held in June, 1985 in the remaining subjects including the regional languages. The test in 12 subjects was repeated in September, 1985.

4.14 The specific objective of these examinations was to test (i) the research aptitude, reasoning ability and comprehension of the candidates; and (ii) competence of the candidates at the postgraduate level in the core and elective areas in the optional subjects taken by them. The test comprises two papers. Paper I regarding research aptitude contains multiple choice questions while Paper II (optional subject) has multiple choice, short answer and essay type questions. The performance of the candidates is judged on the basis of aggregate of marks secured by them in the two papers.

4.15 The Commission feels that, in course of time, activities under the National Educational Testing would be further strengthened and their scope enlarged to include tests for (a) admission to central universities (b) admission to professional courses like teacher education, social work, library science etc. (c) selection of students under the post-secondary talent search; and (d) eligibility for appointment as university and college lecturers.

Creation and sharing of common facilities

4.16 Keeping in view the scarcity of resources and the need to optimise the use of sophisticated facilities, instruments and expertise in highly specialized areas, the Commission has been in favour of providing common facilities, services and programmes for a group of universities and to provide funds for their maintenance for which now there is an enabling clause in the UGC Act. It was with this end in view that in 1984, the Commission decided to provide a national facility for advanced research in the university sector, comparable with highest international standards in the related areas of physics, chemistry, biology and medicine and took the initiative to set up a Nuclear Science Centre at the

Jawaharlal Nehru University Campus, New Delhi. It will be an autonomous organisation and will provide research facilities to teachers from different universities as well as scientists outside the university system. A technical committee has been constituted to prepare a plan of action for this Centre.

Working of the Central Universities

4.17 In order to meet the general expectation that Central Universities would act as pace-setting institutions and also in view of the fact that the Commission has invested a significant portion of its funds in the maintenance and development of Central Universities, the Commission, in 1982 appointed a Committee to enquire into the working of the seven Central Universities i.e. Delhi, Jawaharlal Nehru, Aligarh, Banaras, Hyderabad, Visva-Bharati and North Eastern Hill University. Some of the Committees' more important recommendations are summarized below:

(i) As institutions of national importance Central Universities should endeavour to promote human resource development and national advancement by providing a wide variety of educational programmes to suit the aptitude of scholars and to meet the manpower needs of the country.

(ii) Central Universities should take steps to improve their corporate life, sports and campus facilities. While students and teachers should be involved in university management, steps should be taken to improve discipline and executive decisions should be taken free of pressures from individuals or groups.

(iii) Suitable changes in the Acts of the universities should be made so that the objectives of the universities get better defined and they are enabled to play a significant role in national development.

(iv) A Council of Central Universities may be set up in order to coordinate matters particularly like service conditions and emoluments of the staff etc.

(v) The UGC in consultation with the Central Government, should prepare a separate development plan for the Central Universities.

4.18 The Commission, while accepting the recommendations contained in the report, observed that since these recommendations are based upon sound academic and management considerations, several of these can be expected to have relevance to the needs of state universities also. Steps have since been initiated to implement the recommendations of the Committee, in consultation where necessary, with the concerned agencies. An Implementation Committee is overseeing developments in this regard.

V-Restructuring of Courses and Examinations

5.01 The Commission's scheme of restructuring of courses is based on the following important objectives:

(i) Within the general principles of relevance and flexibility, there is an immediate need for combining the academic component of courses at the first degree level with relevant applied components suited to work experience and to the local/regional needs. This would imply a good deal of integration and broad based re-framing of the first degree courses to give them a practical and rural application orientation.

(ii) The restructuring of courses implies re-orientation of existing courses in subjects to the needs of the region/community and also the introduction of some relevant applied disciplines/subjects related to basic subjects or subject groups. The component of academic subjects has essentially to be the same so that students pursuing these courses are able to go in for postgraduate studies, but their orientation may be different in regard to application of knowledge of the concerned discipline to relevant situations.

(iii) The new courses of applied nature to be introduced do not have to be necessarily in the nature of professional and/or job-oriented courses, but should involve development of appropriate skills and competencies. The underlying idea is to make the courses relevant to the local needs and to enhance the employability of science and arts graduates. Existing courses are to be re-oriented in such a manner that students can apply theoretical knowledge to concrete problems through field work and project work through extension and other practical activities.

(iv) The restructured courses are expected to promote skills and values which would enable the student to have a better awareness of his self and environment of his culture and of the contemporaneous problems of the society.

5.02 A restructured Course is expected to have three essential components:

(a) Foundation Courses

With a view to creating greater awareness of one-self and of the social, cultural and natural environment, a study of foundation courses in the broad areas of knowledge may beintroduced for all degree students as part of restructuring of courses. For this purpose a number of alternative

courses may be provided from which a student can choose according to his need and interest.

(b) Core Courses

Study of two or three subjects not necessarily confined in the same faculty may be prescribed under the Core Courses. The idea is to give the student an opportunity to acquire a broad familiarity with disciplines of his choice, and this should include study of at least one of these subjects in depth.

(c) Courses of Applied Nature

Courses of applied nature would provide for application oriented subjects as indicated above. The exact combination of specific application oriented subjects with core courses may be determined by each university according to the facilities available and the developmental needs of its area.

5.03 Sixteen universities and one deemed university have so far introduced part of restructured courses in their degree/diploma programmes. These courses cover varied fields such as agriculture and environment, horticulture, rural banking, agriculture & marketing, tourism & hotel management, photography, applied electronics or industrial physics, industrial chemistry, computer science, T.V. and radio designing and servicing, air-conditioning & refrigeration engineering, building constructions and town planning, business management and labour welfare, farm management and community development, agro chemicals and pest control, nutrition and health education, industrial relations and personnel management, office management and secretarial practice, home science, automobile engineering, insurance and salesmanship, accounting and taxation, live stock and leather, textile dyeing and printing and handicraft & cottage industries etc.

5.04 Universities which have introduced the restructured courses are: Bhopal, Kerala, Calcutta, Delhi, Jammu, Kakatiya, Kurukshetra, Madras, North Eastern Hill University, Nagarjuna, Osmania, Rajasthan, Shivaji, Vikram, Visva-Bharati, S.N.D.T. Women's, Bombay and Dayal Bagh Educational Institute, Agra (deemed to be university.)

5.05 Twenty two universities and three 'deemed' universities have introduced vocation-oriented courses at degree & postgraduate levels independently of the UGC's scheme for the restructuring of courses. These universities are: Agra, Bhavnagar, Cochin, Dibrugarh, Guru Nanak

Dev, Garhwal, Gujarat, Himachal Pradesh, Himachal Pradesh Agricultural, Jammu, Jodhpur, Kashmir, Madurai Kamraj, Marathwada, Marathwada Agricultural, Punjabi, Sardar Patel, Shivaji, Saurashtra, S.N.D.T. Women's,Utkal & Vikram.

Three deemed' universities which have introduced such courses independently are Gandhigram Rural Institute, Indian Institute of Science, Bangalore and Tata Institute of Social Sciences, Bombay.

Four universities namely Jammu, Shivaji, Vikram and S.N.D.T. Women's have introduced such courses both under the UGC scheme and also independently. The courses include agricultural, marketing, village industries, naval architecture & ship building polymer and rubber technology, banking and commerce, industrial fisheries, computer application, horticulture, petroleum technology, soaps and detergents, cooperative management, sanitary export, management and textiles and textiles printing etc.

5.06 An important activity of the Commission in the formulation of suitable courses of study is the appointment, in every two or three years of panels of experts in various subjects of study and research to advise it on all matters relating to the present status and standards of teaching and research in the subjects concerned, facilities, available within the country and in different regions for teaching and research in the subjects, and also to suggest measures for further development of facilities to promote studies at an advanced level.

5.07 Examination Reform

The Commission attaches priority to examination reform since examinations occupy a very important place in our educational system, having a decisive influence bearing on standards of teaching and research, and being one of the most important determinants of the future career of our students. Through wide-ranging consultations in a series of regional workshops, the Commission has succeeded in evolving consensus in favour of three important measures of examination reform. These are : continuous internal evoluation,creation of question banks and grading. According to information available with the Commission, continuous internal evaluation at different levels has been introduced by 44 universites, 8 deemed universities and 22 agricultural/technological universities. Question banks have been or are being developed in 19 universities and 2 agricultural universities. Grading system is in operation at 22 universities, 6 'deemed' universities, and 18 agricultural/technological universities.

5.08 Attention must also be invited to the growing incidence of mass copying and use of unfair means in some of our universities. Many universities are unable to hold examinations according to schedule or even to put in the requisite number of teaching days before holding examinations.

5.09 The Commission has taken a serious view of these disturbing developments. While reiterating its support for long-term perspective of examination reform as spelt out in "Examination Reforms—A Plan of Action," the Commission suggested the following measures for implementation by every single university of the land:

(a) Syllabus/Question Paper

(i) The syllabus in each paper should be demarcated into well-defined units/areas of content along with a topicwise break-down. The units may be numbered.

(ii) Examiners should be free to repeat questions set in previous examinations. This is necessary in order to ensure that students do not leave out important portions of the syllabus. Instructions to paper setters should be amended accordingly.

(iii) There is often a very wide choice given to students for answering question, say 5 out of 10. Such overall choice restricts the area of knowledge with which a student can pass an examination and is therefore undesirable. If there is choice, it may be provided by alternate questions in each unit of the syllabus.

(iv) No examination should be held without fulfilling the requirement of a minimum number of lectures/tutorials/laboratory sessions etc. which should be clearly laid down by the university.

(b) Conduct of examinations

In order to enable university authorities to conduct examinations in a fair and impartial manner, the Commission would explore the possibility of the enactment of suitable legislation to make cheating in examinations a cognizable offence and to provide the necessary administrative support to check mal-practices. In the meantime, universities must take all steps for the proper conduct of examinations such as effective security measures, proper supervision and invigilation, cordoning off the examination centres from the range of loud-speakers and other interferring activities, use of flying squads and stern action in all cases involving use of unfair means.

5.10 A number of universities have responded favourably to the minimum programme outlined above and the Commission is keeping a continuous watch over developments in this regard. It is gratifying that of late the conduct of examinations has improved substantially as more and more universities are finding it possible to hold examinations in a fair and impartial manner and to keep to their schedule.

VI Faculty Development

6.01 Because of the critical role of the teachers in determining standards of higher education, faculty development has been one of the primary concerns of the UGC from the very beginning. Some of the relevant programmes supported by the Commission in this behalf are: faculty improvement programme, schemes of providing visiting professors and fellows, and schemes enabling teachers to take time off their normal teaching, to engage in writing up the results of their studies and researches. Book writing programmes are also supported.

6.02. In a recent survey under the auspices of the National Commission for Teachers in Higher Education, it was found that approximately 7% college teachers have M.Phil. and 15 per cent Ph.D. degrees obtained mostly under the Faculty Improvement Programme. In universities, 47 per cent lecturers, 76 per cent readers and 84 per cent professors are now with a Ph.D. degree. A more comprehensive programme of teacher orientation and training is now under preparation for implementation in the Seventh Plan. Under the scheme, there will be compulsory orientation of newly appointed university and college teachers. The Commission takes the view that mere subject competence of a teacher is not enough; he should also have a reasonably good understanding of human pschology, communicate well and be able to use modern educational technology and audio-visual aids in his instructional programmes.

6.03 The Commission succeeded during the period under review: in prescribing by regulation the minimum qualifications for appointment to various teaching posts in universities and affiliated colleges. These qualifications came into effect in July, 1983. It is now expected of the universities to make necessary changes in their statutes/ordinances for this purpose.

6.04. During the period under review the Commission also introduced two new schemes for faculty improvement one for the institution of emeritus fellowships and the other for the appointment of research scientists. Under the scheme of emeritus fellowships, the Commission will utilise for special purposes the services of a limited number of highly qualified and experienced superannuated professors in the universities upto the age of 65. The number of such fellows at any given time is not to exceed 25.

6.05 The scheme of research scientists was introduced with a view to promoting high quality research in universities, one hundred such positions in science and the same number in humanities and social sciences were created in the grades of lecturers, readers and professors. Persons of outstanding merit are to be centrally selected initially for a period of five years extendable after a review of their performance. These scientists will be required to devote most of their time to research and will engage in teaching only marginally.

6.06 The Commission has also continued to support the efforts of universities and colleges in providing opportunities to teachers and research workers to participate in seminars/symposia, refresher courses, workshops and conferences etc. The number of such programmes increased from 135 in 1980-81, to 183 in 1981-82, 240 in 1982-83, 294 in 1983-84 and 386 in 1984-85. The total number of such programmes during 1980-85 came to 1,238, 473 in science and 765 in humanities and social sciences.

6.07 Another important programme of faculty development first introduced by the Commission in January 1983 is that of merit promotion for teachers. The scheme aims at providing suitable opportunities to teachers working in universities and colleges for career advancement in recognition of their significant contributions in teaching, research and related educational activities. Under this scheme, a teacher after a critical assessment of his work at the end of a specified period can be promoted to the next higher level, the promotion to be treated as personal to the incumbent and the resulting vacancy to remain unfilled. It is felt that this scheme would go a long way in raising standards of higher education by encouraging university and college teachers to put in their best efforts in their work.

6.08 Other schemes of faculty improvement which were continued and, secured Commission's financial assistance during the period were National Fellowships, National Associateships, National Lecturers, Teacher Fellowships, Career Awards, Travel Grants etc. The Commission also continued to provide grants, on a limited basis, towards the construction of staff quarters and teachers hostels. It also revised the norms for accommodation for staff quarters for teachers and teachers hostels.

6.09 In the case of women teachers, the Commission relaxed the maximum age limit by 10 years for the award of research fellowships, teacher fellowships and research associateships. At least 30 per cent of

research fellowships were awarded to women teachers.

6.10 The Commission has also taken steps to improve the service conditions of teachers. In December 1983, it appointed a committee to consider the revision of pay scales of university and college teachers. The committee appointed five sub-committees to assess the views of representatives of teachers associations, chancellors, vice-chancellors, educationists, state education secretaries and principals of colleges. The Committee is expected to submit its report shortly.

VII Support for Research

7.01 The Commission has, since its inception, regarded research as basic to the concept of a university and held the view that teaching and research can best flourish in combination rather than in isolation. It is also the considered opinion of the Commission that universities should not only be concerned with the fundamental aspects of research but also get involved in tackling the problems of the society, particularly those on which its training and research programmes bear closely. The promotion of research is a matter of individual excellence as well as social concern and should be regarded as such.

7.02 The Commission has invested a significant portion of its funds in developing infrastructure in the universities and colleges, setting up of centres of excellence and in providing assistance to selected individual group or departmental research projects. Such projects fall into two categories—major research projects and minor research projects.

7.03 Under major research projects, the Commission substantially stepped up its support for the purpose. Priority is given to inter-disiplinary research particularly in areas of crucial importance.

7.04 Under the scheme of support for minor research projects in scince, humanities and social sciences, the Commission provides financial assistance, to an individual teacher who wishes to undertake along with teaching work, a short term study or investigation for a doctoral degree under approved supervision. Assistance covers field work, computation and purchase of equipment, apparatus, chemicals and books which are normally not available in the institution where the teaher is employed.

7.05 There has been a significant increase in the number of projects and the quantum of financial assistance approved for both types of projects during the period 1980 to 1985, as can be seen from the following two tables:

TABLE-I
Major Research Projects

Year	Science Subjects		Humanities & Social Sciences	
	No. of projects	Approved amount (in lakhs)	No. of project	Approved amount (in lakhs)
1980-81	189	150.69	30	10.07
1981-82	256	207.94	74	16.89
1982-83	226	216.48	52	18.44
1983-84	245	204.91	96	43.87
1984-85	335	316.70	79	40.44

TABLE-II
Minor Research Projects

Year	Science Subjects		Humanities & Social Sciences	
	No. of projects	Approved amount (in lakhs)	No. of project	Approved amount (in lakhs)
1980-81	Selections were not made		209	8.32
1981-82	694	34.97	303	13.34
1982-83	877	48.46	501	31.85
1983-84	1223	75.43 (upto 15.6.84)	372	33.36
1984-85	668	46.49	682	45.59

Storage retrieval and dissemination of information

7.06 The Commission also extended financial support, during the period under review, to some selected universities for promoting activities like setting up of national information centres, publication of journals, establishment of instrumentation centres and providing computer facilities.

7.07 Considering the fact that more than 20,000 scientists are working in the university system who are seekers of information retrieval, dissemination of information in new areas of research has become a logical necessity. On the recommendation of a committee set up to look into this matter and taking into consideration the existing infrastructure at the Institute of Science, Bangalore, the Commission agreed to the establishment of a Centre for Science Information at the Institute. This Centre has now started functioning and serves the information needs of research scientists in all universities. Similar centres in the humanities and social sciences are being set up at the M.S. University, Baroda and the S.N.D.T. Women's University, Bombay.

7.08 The Commission had earlier intiated a programme of assistance to universities to set up university science instrumentation centres with the object of pooling together costly and sophisticated instruments for the common use of different science departments. Such Centres now exist in 57 universities. The Commission has also agreed to provide assistance to Regional Instrumentation Centre, Indian Institute of Science, Bangalore, and Western Regional Instrumentation Centre, Bombay University, to monitor the functioning of USICs, train resource personnel, provide service and maintenance facilities, and to design new teaching aids etc. It is also proposed to start M.Sc. Course and initiate research activities in instrumentation.

7.09 Computers are considered an essential aid for research work. The Commission in consultation with the Electronics Commission, agreed to provide medium sized computers in selected universities. These universities were advised to make adequate preparation for the installation of the computers, and to appoint necessary technical staff and get them trained from the suppliers of the computer system. Other universities, which are in need of computer assistance are provided financial assistance for buying computer time from nearby computer centres. 35 computer systems have already been installed and are fully functional. The proposals of seven universities for replacement of their existing computer systems have also been approved. The Commission has also provided assistance to five universities to up-grade their existing TDC systems.

7.10 Realising that with the installation of computers, would emerge the need for computer manpower training, the Commission agreed to initiate B.Tech./M.Tech. MCA programmes in computer science and

technology in a phased manner starting from 1982-83. One-year postdegree diploma in computer science and application has been introduced in 28 selected universities.

VIII Relevance of Education

8.01 The changed socio-economic conditions resulting from industrialisation and technological and scientific advancement have served to underline the urgency to make education as functional and relevant to the cultural and economic needs of the society as possible. During the past few years, the Commission initiated a number of programmes in the universities to enable the people to effectively participate and actively involve themselves in the social and economic development of the community. Apart from the scheme of restructured job-oriented courses at the undergraduate level discussed in Section VI, the Commission embarked upon a major programme of providing financial assistance to universities and colleges for adult, continuing and extension education and for distance learning.

Adult and Continuing Education

8.02 The scope of the programmes included under adult education is fairly wide, encompassing as it does removal of illiteracy, post-literacy and follow-up work, population education, family welfare and child care, film clubs, national integration and environmental protection.

8.03 The scheme of adult education was initiated in 1978 and implemented upto 30th September, 1983 in 68 universities, 705 colleges through 8,790 centres, when it was merged in the scheme of removal of adult illiteracy as per Point No. 16 of the new 20-Point programme of the Government of India. Regarding Point No. 16, the Commission has accepted the recommendation of a working group that the adult literacy programme through universities may be implemented in two phases—the first phase to cover the period ending 31st March, 1985 and the second,the period ending 3lst March, 1990. In the first phase all affiliating type of universities and at least 1500 colleges have been involved in 15,000 to 20,000 centres. In the second phase, the number of centres is to be raised to at least 50,000 by involving all the universities and colleges in the country. As on 31st March, 1985, 74 universities and 2,088 colleges were involved in the programme and 36,974 centres had been sanctioned by the UGC.

Distance Education

8.04 The Commission has been supporting the programme of distance education/correspondence courses to enable a large number of

interested persons with necessary aptitude to acquire further knowledge and improve their professional competence. Distance education is essentially based on the supply of instructional material for home study, but has to be supported and supplemented by personal contact programmes, student responses, library facilities, study centres, radio programmes, audio-visual aids etc.

8.05 The objectives of the scheme are (a) to meet the increasing demand for education by utilising alternative systems of delivery (b) to bring about equalization of opportunity by providing facilities in backward regions, as also to the weaker sections of the community including women whose circumstances make it difficult to take advantage of a full time educational programme. Distance education, which is available on an all-India level, also promotes national integration as it exposes students to the cultures of distant regions through personal contact programmes and other forms of interaction.

8.06 The commission has also formulated detailed guidelines covering the following aspects of the programme:

(i) Objectives of distance education courses;
(ii) setting up of schools/institutes;
(iii) criterion for admission;
(iv) duration of courses;
(v) preparation of instructional material;
(vi) despatch of lessons/reading material;
(vii) students response sheets;
(viii)study centres;
(ix) personal contact programme;
(x) staff;
(xi) norms of work; and
(xii) library services, and financial assistance by the UGC.

8.07 The Commission has also accepted the view that the institutes of correspondence courses should not be treated as income generating institutions but as educational institutions like any other educational institutions in the country. A correspondence institute should have adequate core staff and should be given the status of a department. Further it should have sufficient autonomy in its day-to-day functioning and in the development of its courses. It is also important to encourage correspondence institutes to offer innovative, non-traditional and need-based courses.

8.08 While it is true that schools/institutes of distance education are facing some problems and difficulties and not all of them are at the same stage of development, the point that needs to be stressed is that the experimentation made by the Commission with distance education over a period of time has paved the way for the setting up of open university systems in a number of universities culminating in the establishment of first a full-fledged regional open university and now an independent open university at the national level.

IX-Utilisation of Insat for Higher Education

9.01 The University Grants Commission has taken the initiative to utilise the one hour transmission time assigned to higher education in the INSAT-IB Satellite T.V. programme. The successful launching of INSAT-IB Satellite and rendering it operational has opened up great possibilities for the use of television in the developmental support for communication as well as for mass education. The INSAT-IB system is the first of its kind in the world providing a complete network of communications including services like T.V. and radio broadcast, telephones and meteorological information. One great advantage of the INSAT system is that it provides television services to the remote rural and backward areas in the country where developmental effort requires mass media support. It was only proper to use the facility for educational benefits.

9.02 The Commission constituted a working group to advise it on various matters connected with the setting up of Centres of Mass Communication and Educational Technology in Indian Universities. On the recommendations of the Working Group a Task Force was appointed in 1982 to prepare a plan of action. The Task Force recommended three levels of educational media centres in the universities:

(i) Audio-visual Research Centres (A.V.R.Cs.) in a large number of universities to orient the faculty to innovate and take up research in educational technology and to the use of educational media.
(ii) Educational Media Research Centres (E.M.R.Cs.) to be set up at universities that have gained some experience or shown initiative in the use of audio-visual media (essentially for production and utilisation) combined with innovation and research in educational technology.
(iii) National Centre for Educational Media in universities (N.C.E.M.U.) to be set up to coordinate and facilitate the functioning of the E.M.R.Cs and A.V.R.Cs. and to assist in procurement, duplication and distribution of audio-visual material.

9.03 The Commission accepted these recommendations and is supporting the following four Educational Media Research Centres (E.M.R.Cs) and four Audio-Visual Research Centres (A.V.R.Cs) for training and production of software, as given below:

Educational Media Research Centres (EMRCs)

(i) Jamia Millia Islamia, New Delhi
(ii) Gujarat University, Ahmedabad
(iii) Poona University, Pune
(iv) Central Institute of English and Foreign Languages (C.I.E.F.L.) Hyderabad

Audio-Visual Research Centres (AVRCs)

(i) Osmania University, Hyderabad
(ii) Roorkee University, Roorkee
(iii) Anna University, Madras
(iv) Jodhpur University, Jodhpur

9.04 The Mass Communication Unit set up in the U.G.C. and the UGC INSAT Project Unit at Mass Communication Research Centre, Jamia Millia Islamia are together discharging the functions that are to be carried out by the proposed National Centre.

9.05 A Programme Committee at a high level has been set up to advise on the scope, nature and schedule of the software. The Programme Committee in its composition has representation from other organisations like Doordarshan, AIR, ICMR, SAC and Planning Commission.The programmes are not related to definite curricula but are in the nature of enrichment programmes at the undergraduate level. Topics in different disciplines are chosen so that the largest number of students and indeed any educated person may benefit. Some topics also relate to national development and national concerns.

9.06 Some of the UGC Media Centres are already producing Educational T.V. programmes which are being televised through INSAT-IB and Doordarshan network. Nearly 30% of the programmes televised are produced by the Centres at the moment.

9.07 The Commission has also set up a Research Advisory Committee for INSAT Television Programmes for Higher Education. A Research project has been approved in connection with the pre-testing of the T.V. programmes. Pre-testing of six programmes (3 home-made programmes and 3 foreign programmes) was carried out in the VCR mode. The Educational Media Research Centres have also organised workshops to expose the academics to be associated with the Media Centres, to programmes and equipment and to familiarise them with the broadcasting medium as well as to motivate them to experiment with software making.

X-Regional Co-operation

10.01 Sharing in a common historical background, the higher education systems of several Asian countries face common problems and challenges. This coupled with the winds of modernisation sweeping across this part of the globe, make university education a fruitful area in which to explore possibilities of regional cooperation. A four-day conference of Vice-Chancellors/Heads of Universities in the Asian and Pacific Region was held at Vigyan Bhawan, New Delhi on March 18-21, 1985. The conference was aimed at providing a forum to the educatioinal administrators and academics of the Region to familiarise themselves with each others problems and experiences and to provide an opportunity for mutual exchange of ideas to devise proposals for the promotion of co-operation on a long term basis amongst the universities of this region.

10.02 The Conference resolved:

(i) that the conference of Vice-Chancellors of Asian and Pacific Universities should be held every year;

(ii) the conference should be hosted by different member countries in rotation;

(iii) that a permanent secretariat be set up with a Secretary General with a five year term of office, the Chairman for each year being the nominee of the country which hosts the conference for that year.

(iv) pending the creation of a parmanent secretariat, the University Grants Commission, India is requested to look after the secretarial work.

(v) the conference also decided to set up a working group consisting of one representative each of all participating countries to finalise the formation of the permanent secretariat and holding of next conference.

10.03 A ten-day regional symposium sponsored jointly by the UNESCO Regional Office for Education in Asia and the pacific, Indian National Commission for cooperation with UNESCO and the UGC on promoting equity, excellence and efficiency in Higher Education in the Asia-Pacific Region was also held in New Delhi on October 15-24, 1985. Recognising the interdependence of 3E's and that one cannot be achieved in isolation from the other two, the symposium recommended that every effort should be made to highlight the contribution that higher education makes to

development, emphasising the need for larger allocations of funds to this sector. At the same time, it was pointed out, the university system of the region should make every effort to increase the efficiency with which their resources, physical, academic and financial, are utilised. In view of the paucity of reliable information on various aspects of higher education in the countries, the symposium also stressed the need to establish a data base, in every institution, and at the national level, so that policy formulation and development of plans and programmes may be guided by adequate and reliable information.

10.04 Another important matter in higher education to which the group invited attention was the great priorities offered by non-formal and distance education. As a sequel to this symposium, the participating countries will be expected to organise training activities in their respective countries and promote further bi-lateral and multi-lateral cooperation in joint studies, exchange of documentation and sharing of intellectual resources.

XI-SOME FUTURE TASKS

Political Interference & Politicisation of University Campuses

11.01 The variety and range of programmes developed by the UGC in pursuit of its constitutional objectives notwithstanding many of our universities continue to be in a state of perpetual crisis. Hardly a week passes when the newspapers do not carry some news or the other about disturbances in our universities. Standards of teaching and examination have shown no tangible improvement and do not appear to have responded much to the programmes and measures initiated so far. As education is a sub system of the wider social system, the view taken and rightly so in many responsible quarters is that in good part problems of University Education are essentially a reflection of the social and political problems of the environment in which our institutions exist and function. The argument is that the problems, whether of students indiscipline or of low standards of teaching, examination and research, arise primarily from political interference and from the excessive politicisation of our campuses.

11.02 There is no gainsaying the fact that much of the political activity of our campuses, based as it is on expediency and opportunism, is of a degenerate nature, which in good part is a direct result of the low political standards set by our political parties and leaders. A particular source of trouble in this regard is the election of teachers and other university employees to national Parliament or State Legislatures. When elected, such persons come to acquire considerable political clout and have a strong tendency to indulge in political manipulations for purely personal or group interests.

11.03 It must also be recognised that most if not all of student agitations resulting in indiscipline and disruptive campus activities are launched by Student Unions. Instead of taking up academic or genuine causes, or contributing to the corporate life of the campus, student unions frequently take up populist causes and make the normal functioning of institutions difficult. Most union leaders are persons of no great academic merit or distinction and are generally those who have either stayed long on the campus without any academic achievement or have an eye on a political career for themselves.Any proper appraisal of the functioning of student unions will reveal that in the their present form they are serving no useful purpose and should have no place in the university system.

11.04 Unfortunately universities themselves have done very ittle to give effective guidance to the students in matters concerning their studies and general conduct. While the Acts/Statutes/Ordinances of many universities provide for rules to be framed regardig student discipline and conduct, practically nothing has been done by them in this regard. This is indeed regrettable because the only purpose of these provisions is to enable the universities to make these rules available to the students at the time of admission, so that the enrollees can give an undertaking to abide by them (rules) throughout their stay at the University.

11.05 A specific question to which attention must be directed here concerns student participation in university affairs. It is becoming increasingly fashionable to suggest that rules for the meetings of the Executive Council should provide for student participation. While one need not underestimate the importance of student participation in university matters that concern them directly, we must realise that there are numerous matters that come up before the Council—financial matters, apointment of selection committees, consideration of their recommendations, etc. to name a few in which it would be unrealistic, in fact unfair, to expect students to contribute much. Not only that, such participation could easily encourage vested interests to manipulate student participation to serve their own selfish ends. Likewise the suggestion favouring students' participation in the meetings of Boards of Studies or university faculties is of doubious merit. Of course, there should be substantial consultation with students in matters of general importance concerning courses, laboratory work, teaching assignments, field projects and extension work, and particularly in matters of coordination between different departments.

Improving the Work Climate of our Institutions:

11.06 However unpleasant, the fact has to be faced that behind most of the student trouble afflicting our universities is the hand of the university don. Factionalism among teachers is rampant in our institutions and actively instigates them, one against the other. The first casualty in such a situation is the teacher's own performance. The National Commission on Teachers of Higher Education during its visits to the colleges and universities in different parts of the country found that many teachers take their duties lightly, do not prepare their lectures, dictate notes which have not been revised or updated for years, cut their classes, and pay little attention to the difficulties referred to them by their students. The reactions of community members when asked to indicate their

perceptions regarding how seriously teachers took their work, turned out to be equally unflattering to the teachers.

11.07 It is because of the poor performance of such a large number of teachers in universities and colleges that the teaching profession nó longer enjoys the prestige and status it used to once upon a time. How to raise the standards of performance and conduct of our teachers is, there fore, a matter of the highest importane to the future of our institutions. One suggestion is that there should be a code of conduct for uiversity teachers. Predictably enough, teachers are opposed to the very idea of a code, if for no other reason then that such codes have not been prescribed for the administrators and other categories of professional workers. The issue of teacher performance in our institutions is central to the very concept of university development and as such must, now receive the nation's best attention without any further loss of time.

Decentralisation of College Administration

11.08 A special feature of the Indian system of Higher Education is the affiliated colleges. We have nearly 5500 affiliated colleges which cater to 88% of the total number of students at the undergraduate level and 53.9% at the research level. The problem of quality of university education is unmistakably, therefore, the problems of the quality of education offered by these colleges.

11.09 Both experience and commonsense suggest that if these colleges have to work and grow in a climate of trust and accountablity, parent universities must practise maximum decentralization of authority and powers in favour of these institutions and fully respect the autonomy of their groverning bodies. In States having a large number of affiliated colleges and in which there is a real need for establishing a coordinating body, steps should be considered to create an Administrative Council of affiliated colleges so that problems facing these institutions can be sorted out expeditiously.

11.10 There is also need to amend university acts suitably to provide for the declaration of deserving colleges as "Autonomous" Institutions. This particular recommendation was first made by the Kothari Commission in 1966 and has since been accepted by the UGC. However, not much progress has been made in implementing it.

11.11 The de-politicisation of our campuses, improving the teaching

and research performance of our teachers, and the decentralization of the control and management of our colleges are examples of some of the crucial problems to which increasing attention by the UGC and the universities themselves will have to be directed in the days to come. The problems are by no means new; we all know them. But unfortunately we have not so far shown the will and determination necessary to come to grips with them. Further, in tackling these we can succeed only with the fullest cooperation of the Central and State Governments. In fact a stage has long been reached when a strategy for reform in higher education to succeed, must in the very nature of the case be 'total'. No piecemeal or fragmanted approach is ever likely to bring about a change in the situation. Of critical importance in evolving such an approach of course will be the cooperation of the teachers themselves, particularly of these of them who believe in knowledge and excellence, who care for their students, and to whom the future of the nation is more important than any short term personal gain.

Appendix I

Development of Higher Education In india: A Policy Frame*

SECTION I

Objective

1.01 The main objective of this paper is to suggest a policy frame for the development of higher education in India over the next ten to fifteen years. As education at all stages forms an integrated whole, and as the university has a signifcant role to play in school and adult education, this task has been attempted against the background of a perspective for the development of education as a whole during the same period.

SECTION II

2.01 Achievement and Failures: The history of Indian education is a picture of both light and shade, of some outstanding achievements alongwith many outstanding failures. As a result of the system of education that we have developed during the last 150 years, we have now more than 120 universities (or similar institutions), 4,500 affiliated colleges, 40,000 secondary schools and 6,00,000 elementary schools, 3.5 million teachers, 100 million students and an annual expenditure of Rs. 25,000 million, which is next only to that on defence. It has given us a high level trained manpower whose size is the largest in the world and top-levels of which are comparable to those of leading countries in the world. It is this manpower which now provides the key-personnel in all walks of our national life, and also enables us to help several other developing countries.

2.02 Unfortunately, the system has also developed three major weaknesses:

(1) It still continues to be dominated by models and value-systems adopted during the colonial regimes. For instance, it lays greater emphasis on narrow individualism, unhealthy competition to the neglect of social good, verbal fluency (especially in English), and mere acquisition of information, while it neglects social objectives, co-operation, manual work, training in skills and building up of character. It places an almost exclusive emphasis on the formal school (with its

*Document First printed in February 1978 and Reprinted in May 1978 by the University Grants Commission.

single-point entry, annual sequential promotions, insistence on full-time attendance, and almost exclusive use of full-time teachers), and neglects both non-formal and recurrent education. The educational institutions function in isolation from the community as well as from one another. The system is gigantic monolith, very difficult to move or change; and in spite of its achievements which are by no means inconsiderable, it has proved itself to be inadequate to meet our national needs and aspirations.

(2) The system maintains a set of double standards. A small minority of educational institutions at all levels is of good quality and compares favourably with those in developed countries. But access to them is selective and is mostly availed of by the top social groups, either because they can afford the costs involved or because they show merit which, on the basis of the existing methods of selection, shows a high correlation with social status. But this core of good institutions is surrounded by a large penumbra of institutions where although there is open-door access, the standards are poor. Consequently it is in these institutions that the large majority of the people including the weaker sections receive their education. This dualism leads to undersirable social segregation and to a perpetuation and strengthening of inegalitarian trends in our society.

(3) Even in quantitative terms, it is mainly the upper and middle classes that are the beneficiaries of this system. Sixty per cent of the population (age 10 and over), which is still illiterate, has obviously received none of its benefits. Of every 100 childrens of six years of age, 20 never go to school, 55 drop out at an early stage, so that only about 25 complete class VIII. 70 per cent of the seats in secondary schools and 80 per cent of the seats in higher education are taken by the top 30 per cent of income groups.

2.03 What the system needs, therefore, is a drastic overhaul; a transformation of its character, through the introduction of a modern scientific outlook and other essential measures, to suit our national needs and aspirations; a substantial improvement of standards; an extension of its coverage so that the education of the people becomes, not a peripheral pursuit, but a central objective. It is in these three main directions that educational reconstruction in India will have to be vigorously pursued in the years ahead.

2.04 Transformation of the Educational System: Perhaps the most urgent and significant reform needed is to transform the value system, the basic structure and processes of the educational system, to make it flexible and dynamic, and to move in the (ultimate) direction of providing

opportunities for life-long learning to every individual. This transformation will emphasize ethical values and human welfare enriched by science and technology. It will also imply the shifting of emphasis from teaching to learning, from the individual to social objectives, and from mere acquisition of information to the development of skills and character formation based on knowledge. There would be multiple points of entry, flexible and student-oriented curricula, an equal emphasis on all the three channels of study (full-time, part-time or own-time), use of all the teaching resources of the community (both human and institutional) rather than depending only on the schools or professional teachers. It would imply of the provision of every facility for recurrent education so that an individual can join or step off the formal system as and when necessary, adopt any channel of study that suits him, and learn at his own best pace and from whomsoever he chooses; work and education (which will be closely linked to productivity) would run concurrently throughout the life of an individual; and education and development would be linked together, education assisting socio-economic transformation and participation in programmes of such transformation, becoming a medium of education itself.

2.05 Improvement of Standards: The standards of education need to be defined in the wider sense of the all-sided development of the personality of the individual and his commitment to social objectives; and these would have to be substantially improved and continually raised to suit the changing needs of the country. The system of double standards in educational institutions—one for the rich and the well-to-do and the other for the large majority of the people—should be done away with. All children, both rich and poor should rub shoulders with each other in a system of common schools at the elementary stage; and in all post-elementary education. Access to the pace-setting institutions should be available to all talented children, irrespective of their social and economic status. Methods of identifying talent by test which do not discriminate against children from disadvantaged backgrounds should be devised and preference should be given to those from disadvantaged backgrounds even if their 'talent-rating' is lower. For such children, special remedial coaching and training will have to be provided, and the appropriate methodology evolved with care. It is true that the maintenance and improvement of standards would need physical inputs, such as good teachers and better learning tools and facilities. But they depend more basically on discovery and cultivation of talent and the creation of a climate of dedicated hard work in all educational institutions.

It is these programmes that need to be developed on the basis of a high priority.

2.06 Expansion: If the coverage of the educational system is to be improved and if the large majority who now remain outside it is to become its principal concern, high priority will have to be given to the following three programmes:

(1) Adult Education: The education of adults has received very low priority so far. But in view of the fact that it yields early dividents, it should be accorded the highest priority in the years ahead and even among adults, the education of the large number of poor and illiterate persons should receive the utmost attention. The main objectives of this programme should be to educate and mobilize the masses and to involve them meaningfully in national development. It should also strive to make all adults (particularly in the age group 21-35) functionally literate, and lay the greatest emphasis on the non-formal education of youth (age group 15-21). A massive programme of motivating adults and enthusing and training voluntary workers and institutions will have to be developed for the purpose.

(2) Universal Elementary Education: The objective of this programme should be to provide free and compulsory education for all children (age-group 6-14). The task is very difficult because the non-attending children now consists mostly of girls and children of scheduled castes, scheduled tribes, landless agricultural labourers and other weaker sections of the society. An early solution to the problem, which is closely related to that of adult education, needs a deep political commitment, a mass movement, and a large investment of resources. It will also be necessary to bring about a radical transformation of the existing educational system by the introduction of a multiple entry system, part-time education and use of non-professional teachers. In addition to the existing channel of full-time formal education in the age group 6-14, which will have to be strenthened and expanded, part-time classes would need to be run for children in the age group 9-14 who are required to work and do not, therefore, go to school, or drop out of it at an early stage. The principle to be followed will be that every child shall continue to learn, from the age of 6 to the age of 14 on a full-time basis, if possible,and on a part-time basis, if unavoidable for economic reasons. The standards of elementary schools should be improved, school timings and vacations suitably altered, and the programme of free midday meals expanded so that their attracting and holding power is substantially

increased. The content of elementary education should be radically altered by the introduction of socially useful productive work and social service as integral parts of education and by relating the curriculum to the local environment. The common school system of education should be adopted to promote social cohesion and national integration. Side by side, low-cost programmes of pre-school education should be developed, especially for the children of the poor in rural areas and urban slums, with the use of local personnel and materials.

(3) Special Facilities for Post-elementary Education: The access of a large majority of people, and especially the poor, to secondary and higher education should be increased. From this point of view, the special facilities which are now given to scheduled castes and scheduled tribes should continue and should generally be extended to all people below a prescribed income level, irrespective of caste, region or sex. Special efforts should be made, at all stages of education, to discover talented children from the economically handicapped families, and as this talent is our best national asset, they should be treated as wards of the State and assisted, through scholarships and bursaries, placement, individual tuition and guidance, to receive the highest education they are capable of.

2.07 Secondary Education: The significance of high standards in secondary education is obvious; it supplies the teachers for elementary education and the students for higher education and thereby controls the standards in both the stages. Yet, in Indian education, secondary education has always remained the weakest link. This situation calls for immediate and vigorous remedial action.

2.08 The following measures are suggested for improving the standards of secondary education:

(1) As in the new pattern, elementary and secondary education should cover twelve years so that secondary education can prepare for entry into work at a large variety of skilled levels and also send up more mature and better prepared students to the university.

(2) At present, there has been a very haphazard growth of secondary schools, many of which are of such small size that they can be neither economic nor efficient. It is necessary to plan the location of new secondary schools with great care and to rationalise that of existing ones to the extent possible. Efforts should also be made to see that all secondary schools reach an optimum size, which makes them economically and academically viable.

(3) The curriculum of secondary schools should be drastically revised. Work and social service should become its integral parts. It is necessary to distinguish between the work-load of students and standards of attainment. Today, the work-load is heavy and the standards low. Good planning, good teachers and good methods of teaching and evaluation can reduce work-load and yet improve standards, and this is the direction in which we should work. Till class X, there is need to adjust the curricular load in order to find more time, not only for work and social service, but also for physical education, games and sports and cultural activities so as to develop a complete personality. In classes XI-XII, the higher secondary level, adequate steps towards differentiation and diversification should be taken and the programme should be intensive enough to prepare students either for the university or for entry into the world of work, as the case may be, It is also necessary to emphasize that everything included in the curriculum need not be a subject for examination. In fact, all curricula should have some elements which exist for their own sake and are not related to examinations.

(4) Great emphasis should be laid on teacher improvement, provision of adequate facilities for it (including improved teaching and learning materials), adoption of progressive and dynamic methods of teaching and evaluation, and creation of a climate of dedicated hard work.

(5) Every effort should be made to identify talented children at the elementary stage and they should be assisted in all ways possible and necessary, including the provision of bursaries, to continue their education at the secondary stage.

2.09 The present system of public (and similar) schools run by private bodies, charging high fees which restrict them to the children of the affluent, is inconsistent with an egalitarian society. There is a need for Government to establish many more quality schools so that talented children from poor families may be placed there, and also to require every existing institution of this kind to admit at least half of its students from among the talented but economically handicapped students, and to give free freeships to them.

2.10 Another major programme at the secondary stage which needs attention on a priority basis is vocationalization, which will give us middle level semi-skilled and skilled manpower in all walks of life. The programme will link education closely with productivity and what is even more important, it will reduce pressures on the universities. In the present

educational system, each stage is treated as a preparation for the next higher stage of education. Instead, the curriculum at each stage must be designed keeping in view the fact that the stage may be terminal for a large percentage of students. Vocationalization will therefore, have to be attempted at three levels: (1) at the end of the elementary stage; (2) at the end of class X; and (3) at the end of class XII. It should be clearly related to the employment opportunities available (including programmes of self-employment) and should be school based, industry/agriculture-based, or of a sandwich type, depending upon the circumstances. The ultimate objective should be to divert about half the young persons to appropriate vocational courses. The successful implementation of the programme will need the co-operation of industry and agriculture, and active participation of all agencies of Government. It must also be emphasized that the extent to which students will opt for these courses will depend upon the development of the economy and the availability of jobs, the narrowing down of the wage-structure between different levels of workers and especially as between the blue and white collar categories, the extent to which the admission to the academic course preparatory to the university become more selective. It will also depend on whether the students who opt for vocational courses are assumed of opportunities for further education and vertical mobility, and on the discontinuance of the present practice of prescribing higher qualifications than actually required for performing the duties of middle level jobs.

2.11 These significant reforms will convert the existing system of education into a new system suited to our needs and aspirations, and will also involve a major socio-economic transformation. Obviously, the development of higher education and research over the next ten of fifteen years will have to conform to the directions of this educational and social transformation. What is even more important, the university system itself will have to play a leading role in bringing about this transformation. The details of this programme will be discussed in the next section. But before leaving the subject, we would like to emphasize one issue; no educational transformation can be brought about in a vacuum because education is a sub-system of the society as a whole and because the social and educational structure support and strengthen one another. Ours is a dual society in which economic and political power is mainly concentrated in the hands of a small class at the top. This reflects itself in a dual educational system in which the access to the best educational institutions at all stages is mostly limited to the same top class. It is this dual educational system which strengthens and perpetuates our dual society. If this vicious circle is to be broken, action on the educational

front alone will not be enough and will not succeed. What we need is a radical, simultaneous and complementary action, for educational as well as social transformation.

While implementing the above educational reforms, therefore, we must also mount a big programme of social, economic, political and normal action to reduce poverty and inequality. This will include the minimization of all forms of exploitation, imposition of limits and curbs on the consumption of the rich and well-to-do and provision of a basic minimum standard of living to all the people through an emphasis on the increased production of goods and services needed by the common man, a guarantee of gainful employment to all able-bodied persons willing to work, and the organisation of nation-wide and efficient public distribution system of food stuffs and other essential commodities. It is also obvious that his attempt at a simultaneous educational and social transformation will not succeed unless we also develop a mass movement in support of these objectives and involve the people themselves in these programmes. The backdrop of a nation-wide and comprehensive mass movement and mass involvement thus becomes indispensable for the educational advance of the people as well as national development.

SECTION III

Development of Higher Education and Research:

3.01 The Role of the University System: The University system has important responsibilities to the society as a whole as well as to the educational system itself. The significance of the traditional functions, of acquisition, preservation, dissemination and extension of the frontiers of knowledge, the balanced education of individuals, and the training of high-level personnel for all walks of life is obvious. But a modern university, especially in a developing country like ours, has to undertake several other functions as well. It must for instance.

- Inculcate and promote basic human values and the capacity to choose between alternate value systems;
- Preserve and foster our great cultural traditions and blend them with essential elements from other cultures and peoples;
- promote a rational outlook and scientific temper;
- enrich the Indian language and promote their use as important means of communication, national development and unity;
- promote the development of the total personality of the students and inculcate in them a commitment to society through involvement in national service programme;

— act as an objective critic of society and assist in the formulation of national objectives and programmes for their realization;
— promote commitment to the pursuit of excellence;
— promote the development of science and technology and of an indigenous capability to apply it effectively with special emphasis on national problems; and above all
— contribute to the improvement of the entire educational system so as to subserve the community.

3.02 Access to Higher Education: Admission to post-elementary education should be linked to talent and aptitude. We should also not deny the right of an individual to life-long learning or to study to the highest extent he is capable of, although the state has every right to decide how its subsidy for such education is to be regulated on the basis of talent and social justice. Our policy in relation to further expansion of all post-elementary (and especially higher) education has, therefore, to be based on several conflicting considerations. On the one hand, we cannot igrore the increasing demand for higher education from all sections of the people and especially from the weaker sections, who consider it an almost exclusive channel of vertical mobility. On the other hand, we cannot also ignore or under emphasize some aspects of the situation such as the inability of the economy to absorb its products, the growing spectre of educated unemployment, lack of resources in men, materials and money which often makes expansion lead to dilution of standards, and the unacademic consideration that drive thousands of young persons to the universities.

The policy to be adopted in this regard should,therefore, consist of the folowing: (1) adoption of measures which will reduce pressures on the University system, such as effective vocationalization at the secondary stage, delinking most of the jobs from degrees, and changing the present recruitment policies which virtually make a degree a minimum qualification for any good job; (2) exercising great restraint in the establishment of new institutions, which would not be set-up (except in backward areas) unless their need is clearly established on sound academic consideration and adequate resources in terms of men, materials and money are available; (3) planning the location of new institutions very carefully and rationalising that of the existing ones to the extent possible; (4) adopting a policy of selective admissions to full-time institutions of higher educations at first degree and post-graduate levels on the basis of merit with reservation of atleast half the seats for all weaker section; (5) enabling talented but economically weaker students

to pursue their studies on a whole-time basis by ensuring to them the full cost of their education through appropriate bursaries, for which funds may be raised from public and private bodies; (6) providing facilities for expansion of higher education through channels of non-formal education such as correspondence courses; and (7) opening Board and university examinations to private candidates to encourage self-study.

The policy outlined above will create the essential basic conditions for the proper development of higher education. It will also ensure that expansion of facilities in post-elementary education will not be at the cost of quality (which is what often happens at present), that non-formal post-elementary education, where the unit cost of education is appreciably lower, shall be available to all who desire it and qualify for it, that the access of the weaker sections to secondary and higher education will increase rather than decrease, and that it would be adequately subsidised from State funds. The programme outlined above will largely depend for its success on the quality of leadership provided by university and college teachers. The terms and conditions of service should be attractive enough for some of the best minds in the country to join the profession. At the same time, the facilities for acquisition of further knowledge should be provided. Also, it will succeed better if there are adequate job opportunities for those who have not been selected, if the formal and non-formal channels of education are treated as equal in status for purposes of employment, and if due concessions (including age relaxations) are allowed to ensure that those who adopt a method of recurrent education (i.e. transferring themselves from school to work and vice-versa according to needs) are at least not at a disadvantage in comparison with those who complete their education at one stretch.

3.03 The Undergraduate Stage: A major programme of reform of higher education is the restructuring of courses at the undergraduate stage to make them more relevant and significant, not only to the students but also to the nation as a whole by assisting social transformation and national development. It is absolutely essential that every undergraduate student should be given a grounding in four important areas: (1) a set of foundation courses which are designed to create an awareness of areas such as Indian History and Culture; history of the freedom struggle in India and other parts of the world; social and economic life in India, including concepts and processes of development; the scientific method including the role of science and technology in development; alternative value systems and societies based thereon;

Cultures of Asia and Africa (selected countries) and Gandhian thought; (2) a set of core courses which will give the student an opportunity to acquire a broad familiarity with some chosen disciplines, including a study of one or more of them in depth; (3) some applied studies projects/field activity which will form an integral activity of the course and will be carried out in the final year; and (4) involvement in a programme of national or social service for the first two years. This will provide a rounded and richer education.

To get the full advantage of this reform, several important measures will have to be adopted. For instance, the courses should be diversified, especially to cover newly emergent and inter-disciplinary area; a greater freedom should be allowed to the student, through the adoption of the semester system, to choose the courses best suited to his interests and capability; unit courses and modern and dynamic methods of learning and study should be adopted; and examination reform should be carried out with vigour and determination.

3.04 It is also necessary to provide liberal and well planned assistance for the improvement of affiliated colleges, which do most of the undergraduate teaching. From this point of view, the central programmes of assistance to affiliated colleges should be diversified and expanded. An effective machinery should be created at the Stage level for grants-in-aid to affiliated colleges, and the State grant-in-aid codes should be modernised and revised to bring about improvement of standards. Side by side, adequate and firm measures should be taken to improve the management of colleges.

3.05 Post-graduate Education and Research: The post-graduate stage assumes the highest significance for maintaining educational standards and for programmes of development. As its objective is to take a student to the threshold of new knowledge, it is essential that the teachers and students at this stage are themselves actively involved in the creation of new knowledge and its techniques, i.e., in research. Every institution providing post-graduate instruction must, therefore, have competent staff actively engaged in research and adequate research facilities in terms of laboratory equipment and research journals. It, therefore, follows that the responsibility for post-graduate education must, by and large, be directly assumed by the universities themselves.

At present about 50 per cent of post-graduate students and about 11 per cent of research students are studying in colleges. While a few colleges have outstanding research and teaching departments, most of

them are poorly equipped for post-graduate instruction. Their situation should be reviwed in terms of the norms established by the University Grants Comission, and those having the potentiality of coming up to the norms within a few years should be assisted to do so as soon as possible, while the others should discontinue post-graduate instruction in the interest of standards. Collaborative efforts by colleges, which may not individually be viable units of post-graduate instruction but may be able to form viable units collectively, should also be encouraged. The University Grants Commission, Universities and State Governments will have to take concerted steps in this regard.

3.06 Other measures required for the development of higher education include the following:

(1) With the rapid increase in the number of universities, there is a need to ensure that all the University Departments themselves satisfy the norms as viable units of teaching and research.

(2) While inter-disciplinary courses should be introduced at the undergraduate level also, special efforts must be made in this regard at the post-graduate and research level.

(3) Individuals, groups and departments in universities and colleges should be supported, on carrying out high quality research. Special encouragement should be given to collaborative research efforts by a group, drawn from one or more departments, on the basis of pooled resources.

(4) High quality experimental research demands the development of indigenous instrumentation capability and culture. Efforts in this direction should be encouraged through support of research schemes and the creation of university instruments and service centres and regional instrumentation centres.

(5) While universities will continue to be involved in fundamental research, application oriented research, especially in collaboration with national laboratories and industries need to be specially encouraged in universities. Both fundamental and applied research require the highest intellectual qualities.

Fundamental discoveries in science lead to technological advances, while progress in technology provides the scientists with sophisticated tools and instruments and enables them to make fundamental discoveries. As such, both in teaching and research, it is necessary to see that the best talent in the country is harnessed for the development of

science and technology. Nor should we neglect the most modern and sophisticated technology which is very essential in certain areas such as heavy industries, defence, communications, transport, energy, etc.

(6) In order that universities may be able to contribute to the social development and change, they have to go outside the four walls of the classroom and get involved in a participatory understanding of some of the societal problems. Such research programmes as contribute to social development, especially to rural development, should be encouraged.

(7) While fostering knowledge of science and technology at the highest theoretical level and spreading it in the rural areas, there is a growing need to develop technology relevant to emergent national needs. Such a development would also demand appropriate interaction between the institutions of higher learning and the productive processes and organs of society.

3.07 Diversification: As enrolments increase and the student community gets larger, it is essential to diversify the courses and models of higher education, and to create new processes and models to suit the emerging needs. In fact, we should move in a direction where institutions of higher education represent a very wide spectrum of which the classical type is only one, although an important illustration.

3.08 Decentralization: It is equally essential to move away from the existing system of the affiliating university or centralization of academic authority and external examinations. The system as it works creates very dilatory procedures. The rigidity of the affiliating system also deprives the good teachers of the opportunity to take initiative for creative, imaginative and more fruitful action. It is, therefore, absolutely essential to decentralise authority and confer autonomy, from the university administration to the university departments and from the universities to colleges. The existing bureaucratic and centralised structures of the universities have to be radically altered to avoid delays, to evade attempt at rigid uniformities, to create an elastic and dynamic system and to promote innovative initiatives and reforms.

3.09 Autonomous Colleges: The concept of autonomous colleges is of special significance in this context. Autonomy for a college implies that the college and its teachers assume full responsibility and accountability for the accademic programmes they provide, for the content and quality of their teaching, and for the admission and assessment of their students. Unless this basic condition is first met, it will not be possible to tackle the

problem of *relevance* satisfactorily or to diversify and relate curricula to local needs and conditions, and what is even more important, to give greater individual attention to the students on the basis of their needs and aptitudes. This alone will make it possible for institutions of higher education to become communities of teachers and students engaged in an agreed and mutually satisfactory joint pursuit of truth and excellence. However, it would be necessary to ensure that the terms and conditions of service for teachers prescribed by the Government and the University Grants Commission continue to apply to these institutions, and that the institutions continue to subserve the needs of national integration and development. The concept of autonomous college does not imply permanent categorisation of an institution under a separate label for a higher formal status. It requires an institution to be continuously subjected, in order to justify its recognition as an autonomous college, to periodic reviews and 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. In short, such a privilege will have to be continuously earned and sustained through performance. Over the years, we should move in a direction where autonomy becomes, not a reward for excellence, but the minimum condition for the very existence of the college. It must also be emphasized that, in the interest of good education and in the larger interest of society itself, each institution has to seek its identity in its own unique fashion, consistent with its local situation and the academic perspective of the local community.

3.10 As a step toward the development of this programme it is necessary to survey carefully all the colleges in a district and to identify one or two colleges which can become academically viable through guidance, planning and financial assistance. These colleges should be assisted to realize their potential and given autonomy to develop new courses in relation to the needs of the local region and its development. The programme can, over the years, be extended to other colleges as they show a desire and potential to develop on these lines.

3.11 Academic Freedom: To be an objective critic of society in an important responsibility of the university system. This can be discharged satisfactorily only if the academic freedom of the teachers and students to express their views freely and fearlessly is adequately protected. This freedom also deserves to be exercised more widely and ably.

3.12 Extension: if the university system has to discharge adequately its responsibilities to the entire educational system and to the society as a whole, it must assume extension as the third important responsibility and

give it the same status as research and teaching. This is a new and extremely significant area which should be developed on the basis of high priority. As can easily imagined, the extension programme of the university system will fall into two broad categories.

(1) Extension Services to School and Colleges: The universities should work with the colleges which, in turn, should work with the secondary and elementary schools in their neighbourhood and help them to improve standards by in-service education of teachers, sharing of facilities, provision of enrichment programme for students and discovery and cultivation of talent. The development of proper Research and Development (R&D) programme for the education system is also a special responsibility of the universities.

(2) Extension Service to the Community: The university system also has a great responsibility to the society as a whole. All universities and colleges should develop close relationships of mutual services and support with their local communities, and all students and teachers must be involved in such programmes as an integral part of their education. The National Service Scheme (N.S.S.) programme should be expanded and improved, ultimately to cover all students. The fundamental purpose of these and other student programmes should be to implant a spirit of cooperation and social commitment interrelated to moral development. It should be the obligation of the teaching community to give extension lectures to interpret recent trends in their fields to the community, to create scientific awareness, to participate in adult education and workers' education programmes, etc. Universities can also help in the preparation of development projects for the community around them, including the rural community. Such involvement will also help in bringing greater relevance into the courses at the undergraduate and the post-graduate levels and into the research programmes.

3.13 Standards: It will not be proper to continue to judge standards, as in the past, on the basis of academic performances only. In view of the new concept of the roles and functions of the universities and the acceptance of research, teaching and extension as equally important responsibilities of the universities, standards of higher education will have to be judged, not only on the basis of the academic achievements of its alumni and teachers, but also in relation to their social commitment and their contribution to social and national development. Moreover, attempts will have to be made, on the basis of the highest priority, to improve standards. The programmes to be developed for the purpose will include faculty development, provision of essential equipment, building and other

facilities and organisation of an adequate programme of students services. These will need considerable investment in men, materials and money. But even more importantly, they need commitment and competence on the part of the teachers, high motivation in students who should be selected for their capacity, and a climate of sustained and dedicated hard work. A selective approach, proper planning and concentration of resources are also equally essential to achieve good results.

3.14 The problem of the medium of instruction is of special significance in this context. At the undergraduate stage, the process of transition from English to regional languages is already well under way. It must be expedited and assisted through the production of the necessary text books and other learning and teaching materials. At the post-graduate and research stage, where the process is mostly of self-learning, a medium of instruction is of less significance and what really matters is the capacity of the student to directly acquire the growing knowledge in the world in the field of his specialisation. It should be emphasized, however, that the growing use of the Indian languages increases, rather than decreases, the need to study English which will continue to have a significant place in our education. Obligatory passing in English should not be required at the undergraduate stage. Adequate arrangements should, however, be made for specialised intensive courses in English in every college on an optional basis.

Learning of the English language should be promoted not by way of creating an impediment for any student for this or by further studies but should be available as a positive help in the form of reading service at every stage of education, including the post-graduate level or even after that. English should be used for buiding knowledge and not for building status. If this role of the English language as a positive instrument of knowledge is accepted, then facilities for its learning in various forms and content should be made available to each group of students according to their own needs. This type of an approach will be an approach of service rather than subjecting everyone to a uniform pattern, irrespective of need.

At the post-graduate stage, the student needs to have a good working knowledge of an international language so that he may have direct access to the specialised and growing knowledge in the world in his own or other fields. Passing a competence test in English may be required of a student seeking admission at the Master's level, depending on the needs of the field he wishes to study. Full encouragement should also be given to the study of foreign languages other than English.

Special groups may be appointed to examine the problem of switch-over to regional languages in the field of professional education.

3.15 The Role of the UGC: The coordination and maintenance of standards in institutions of higher education and research is a central responsibility. The UGC has been created by an Act of Parliament to look after this responsibility and empowered to take, "in consultation with the Universities and other bodies concerned, all such steps as it may think fit for the promotion and co-ordination of University education and for the determination and maintenance of standards of teaching, examination and research in Universities" (Section 12 of the UGC Act). To discharge this responsibility adequately, the UGC has to assume several roles and functions. For instance, it has a major role of providing leadership and impetus for reform and development. Towards this purpose, the Commission must continuously review the emerging problems of education, the status of teaching and research in different disciplines and the standards of teaching and research in the universities. It should through its committees and panels and other means evolve a consensus within the academic community regarding desirable changes in higher education.

3.16 It is the responsibility of the UGC to strive to provide leadership to the entire educational system and assist it to bring about the needed transformation. This can be done by encouraging the universities to play an increasingly active role in improving the quality of education in colleges and schools, by intensifying the R&D effort in education and by promoting the philosophy of extension whereby teaching, research, service of the community and the building of character become an integral activity.

3.17 The UGC has to play an increasing role in promotion of high quality research in universities because of the symbiotic relationships between teaching and research. At the same time it must promote applied research which has an immediate impact on the social and economic conditions of the people.

3.18 The UGC should strive to remove regional imbalances in the development of higher education in different part of the country and to relate such development to the programmes of socio-economic advance and cultural growth of the people in the various regions.

3.19 The UGC should actively promote through the creation of an appropriate pattern of recognition and appreciation, the maintenance of

values in the academic community so that its commitment to the pursuit of truth and excellence is enhanced and it is enabled better to discharge its responsibilities to society.

3.20 The leadership and catalytic role of the UGC has to be supported by the creation of appropriate organizations at the university and State levels. These would include a mechanism for surveys of undergraduate colleges in relation to well-defined norms and guidelines so as to ensure that further proliferation of sub-viable colleges is arrested, and for similar surveys of post-graduate colleges so as to ensure that they satisfy the UGC norms, and maintain certain minimum standards. It would also be necessary for the UGC to persuade the universities to establish academic planning, evaluation and implementation boards to look after the post-graduate and research programmes in a long term perspective, and College Development Councils to advise and guide the colleges to improve their academic standards with the help of various UGC schemes.

3.21 Conditions Essential for Success: The system of higher education is now in a state of crisis, due to uncontrolled and unplanned expansion, inadequate inputs in terms of money, materials and talent, falling standards in a large proportion of institutions, weakening of student motivation, increase of educated unemployment, weakening of discipline and dys-functionalities created by the adverse effect of socio-economic problems, a lack of relevance, and significance, and because of undue political interference by subjecting universities to political and partisan pressures and lack of a national consensus in dealing with such situations. It is obvious that universities cannot function smoothly without adequate support from the Government. This crisis continues to deepen with the passage of time and spreads, not only to the entire educational system, but back again into the society itself. If this crisis is to be resolved quickly and successfully, three basic conditions will have to be fulfilled:

(1) The Government should take hard decisions on delinking most of the jobs from degrees, provision of large additional investment needed to discover and develop talent, and to provide satisfactory conditions of work, revision of recruitment policies, etc. It should also support the universities in taking hard decisions in selective admissions, regulation of opening of new colleges, provision of satisfactory conditions of work and protection of university autonomy.
(2) The teachers and students should carry out their part of the responsibility through intensive efforts to improve standards and the whole academic community should strive to serve society, through

sustained, dedicated work, and commitment to the pursuit of knowledge, excellence, and national development.

(3) A nation-wide effort should be organised to achieve a simultaneous break-through on the social as well as educational fronts.

The tasks of educational reconstruction thus require an intensive, coordinated and collaborative effort on the part of all the agencies involved viz.,the Centre, States, public, teachers, students and administrators. Instead of trying to blame each other (and each one of these has its own share of achievements as well as failures), all these agencies should work together for bringing about an educational and social transformation on a scale commensurate with the size and complexity of our problems. If this can be done, there is no doubt that we shall soon be able to create a new educational system and a new society.

Appendix II

On going programmes of the University Grants Commission

I. Development of Universities

(i) General Development (Staff, Equipment, Academic buildings, Books and Journals)
(ii) Centres of Advanced Study and Departments of Special Assistance
(iii) University Centres for postgraduate studies
(iv) Area Studies
(v) Guest House
(vi) Establishment of Chairs
(vii) Development of Computer Facilities
(viii) Central Instrumentation Facilities
(ix) Collection and Preservation of Manuscripts
(x) Appointment of Development Officers
(xi) Centenary Grants
(xii) Infrastructural Facilities (Hostels, Staff Quarters, Library Buildings, Laboratory Facilities)
(xiii) Development of Museums
(xiv) Unassigned Grants
(xv) Development of Wild Life and Research
(xvi) Development of expertise in the field of Archaeology and Museums in the Universities.
(xvii) Establishment of Archival cells in the universities

II. Development of Colleges

(i) General Development (Rs. 3/5 lakh scheme viz. Academic Buildings, Classrooms, Laboratories, Hostels, Staff Quarters, Books and Journals and Equipment).
(ii) COSIP/COHSSIP
(iii) Development of Postgraduate Studies in Science
(iv) Development of Postgraduate Studies in Humanities and Social Sciences
(v) Development of Autonomous Colleges
(vi) Centenary Grants
(vii) Assistance towards Restructuring of Courses

III. Faculty Improvement Programmes

(i) Seminars, Summer Institutes and Workshops
(ii) National Fellowships
(iii) National Associateships
(iv) Visiting Professorships, Fellowships and Faculty
(v) Research Associateships
(vi) Teacher Fellowships
(vii) National Lectures
(viii) Utilisation of Services of Retired Teachers
(ix) Travel Grants
(x) Career Awards to Young Scientists
(xi) Sabbatical Leave

IV. Support for Research Work

(i) Advanced Research Projects in Humanities and Social Sciences
(ii) Short-term Research Projects in Humanities and Social Sciences
(iii) Major Research Projects in Science
(iv) Minor Research Projects in Science
(v) Core Support for Research
(vi) Research Scholarships and Fellowships
(vii) Financial Assistance to teachers for Research Work
(viii) Publication of Theses and Learned Research Works

V. Student Welfare Programmes

(i) Student-Aid-Fund
(ii) Non-Resident Student Centres
(iii) Study Homes
(iv) Book Banks
(v) Health Centres
(vi) Employment Information, Career-advising and Vocational Guidance Bureaus
(vii) Construction of Gymnasium
(viii) Development of Play fields
(ix) Appointment of Trained Coaches
(x) Canteens

VI. Academic and Cultural Programmes

(i) Correspondence Courses
(ii) Adult/Continuing Education and Extension
(iii) Cultural and Bilateral Exchange Programmes
(iv) Examination Reforms
(v) Collection and Preservation of Manuscripts
(vi) National Integration Samitis
(vii) Planning Forums
(viii) Science Education Centres
(ix) Regional Library Centres
(x) College Development Councils
(xi) Gandhian Studies/Gandhi Bhavans
(xii) Book-writing

Appendix III

Guidelines to Universities for Preparation of Proposals for the Sixth Plan

I. GENERAL

(i) Introduction

1. The University Grants Commission has formulated its policy for development of higher education programmes for universities and colleges in the current Plan period. The "Policy Framework" and the "Approach to Development of Higher Education" prepared in this regard have been considered and endorsed at the two conferences of the Vice-Chancellors of Universities held in May and July, 1978.

2. The main emphasis in the current Plan is on improvement of standards of university education and qualitative improvement and also to make extension an integral part of activities of the institutions of higher education. Expansion of educational facilities, both by way of opening of new universities, university centres for postgraduate studies or new departments would have low priority.

3. The policy followed during the last plan period to keep the expenditure on construction of new buildings, to the minimum essential would be continued in this plan period. Special cases, where there are compelling reasons to spend more funds on construction programmes, particularly in the case of the new universities established in the last ten years or so would, however, be considered on merit of each case.

(ii) Resources Position

4. The finance available for higher education during this plan period for central sector would be very limited. A higher proportion of funds for higher education have been allocated to the State Governments in the Plan period. Keeping in view the very limited resources available, the universities (as well as the colleges) have to critically identify with sufficient care and thinking their real development needs and assign to each of them relative priorities as well.

5. The development assistance that may be available from the University Grants Commission to the universities would essentially be related to the needs for qualitative improvements and development of viable schools/groups of teaching and research in areas of importance to national development. There is also the need of balanced development, to the extent possible, of the various disciplines and departments not only within each university but also amongst universities within a State.

(iii) Regulating Enrolment in relation to Facilities

6. The universities which have already reached a critical size and development will have to exercise considerable restraint on expansion of enrolment in formal and full-time instructional programmes at the undergraduate stage in the university departments, keeping a broad balance of 3:1 between the undergraduate and the postgraduate stages adequate attention could be given to advanced teaching and research. In these universities demands for increase in enrolment in undergraduate courses should be substantially met through correspondence courses, extended/evening classes, increasing enrolment in the colleges, and by allowing students to appear as private students; In the case of the postgraduate courses and research, training for M.Phil./Ph.D., the enrolments should be kept to desirable optimum numbers in relation to the strength of the faculty and other facilities available and greater emphasis should be laid on improvement of quality of instruction and research output.

(iv) Strengthening and Coordination of Teaching and Research

7. Each university is required to prepare a comprehensive plan to cover the academic teaching and general research programmes of its departments of study, giving detailed information about:

(a) the number of students enrolled at various stages in the Fifth Plan (1974-78) and 1978-79 in relation to the faculty strength and other facilities available;

(b) output of students, results in relations to inputs;

(c) total income and expenditure on non-plan and plan from all sources, UGC, State Government and other sources; and

(d) the present position as well as the enrolment at various levels proposed to be attained in the end of 1982-83.

8. Efforts should be made to develop suitable pre-Ph.D. programmes in the various faculties, in relation to their needs and to make the training of Ph.D. both inter-disciplinary and broad-based M.Phil. courses as well as post-M.A. and M.Sc. specialised courses of regional relevance could be introduced in relation to the faculty strength and other facilities and on the justification of felt manpower needs.

9. The Universities may give priority to the programmes of strengthening existing postgraduate departments from the point of adequate staff—both academic and technical supporting personnel, research facilities, workshop and library services. The consolidation of such facilities should be given priority before universities consider starting further specialisation within existing departments or starting new departments, as otherwise both of them are likely to remain sub-viable.

10. Every effort should be made to coordinate and centralize major instrumentation and other experimental facilities in the universities so as to make them available for a number of users. There should be adequate provision for maintenance and repair of such equipment so that their use is maximized. The university service and instrumentation centre or the central workshop and instrumentation facility should be adequately strengthened for this purpose.

(v) Extension

11. The universities would be required to discharge adequately their responsibilities not only in the area of teaching and research but also by taking up extension work and accepting certain responsibilities for the entire educational system and to the communities around them.

12. Extension should be made an integral part of the university culture and may assume a variety of programmes and activities most suited to different university situations. While the idea is to involve all teachers, substantial portions of the faculty may be involved to begin with all levels of educational system, primary, secondary education in schools, or adult education and non-formal education, programmes including use of mass

media and educational technology, Science Education Centres for creative work by all sections of society and action-oriented research programmes for solving local problems. In this connection, special attention may be paid to the programme of Adult Education, guidelines for which have been issued separately.

13. Extension may also involve closer interaction with the society in programmes of integrated rura development, inculcation of scientific temper and awareness of impact of science in every day life and proper utilization of products of science and technology, extension lectures, etc.

14. It could also include well defined efforts towards production of books, reading materials, and other activities of production of materials for formal and non-formal/adult education programmes by utilising the infrastructure facilities of the universities and colleges and interacting with local voluntary organisations, industries etc.

15. Acceptance of extension as a part of the overall university culture would require recognition of these activities as contributing to the total work load of the teachers and also should not involve any additional payment specifically for such extension activities. The University should monitor all the extension activities regularly, with reports at suitable intervals to the Commission.

(vi) Opening of New Courses of Study and New Departments

16. In the case of well developed universities, opening of new specialisations would be mainly for purpose of inter-disciplinary integration based upon inter-departmental collaboration or in newly emerging areas which could be largely sustained by existing facilities within the university.

17 In the case of other universities, opening of new departments would be conditioned by overall needs for such departments within the State or region as a whole and conforming to the specific norms.

18. Any efforts to open new departments of study with sub-viable level inputs and inadequate preparation would be discouraged.

19. In making proposals for starting new postgraduate courses or departments of study, if any, priority should be given only to departmentss which try to develop postgraduate teaching and research in newly emerging areas of importance, which can make a contribution to regional and national developmental needs rather than for duplicating traditional M.A./M.Sc. Programmes. Wherever appropriate, such courses should be organised on an inter-departmental basis and in collaboration with R&D institutions and industries in the vicinity.

20. Any courses which have no relevance or are outdated should be dispensed with

vii) Assistance for Special Programmes and Research

21. In the case of special quality improvement programmes, University Grants Commission would continue to follow the selective approach for purposes of inviting departments to participate in programmes such as a) College Science Improvement Programme (COSIP), (b) College Humanities and Social Sciences Improvement Programme (COHSIP) — University Leadership Projects, (c) Examination Reforms, (d) participation in the Faculty Improvement Schemes, (e) Support for individual, group and departmental Research Programmes, (f) Area Studies, (g) Adult and Continuing Education Programmes, (h) University Service Instrumentation Centres, etc. In respect of programmes, such as, the Centres of Advanced Study, Special Assistance to Selected Departments, proposals would be invited by the Commission in the light of policy to be followed for these schemes and in consultation with the subject panels and the standing committees constituted for such programmes.

viii) Participation of Academic and other Staff in Planning Development

22. In the formulation of the development proposals of the various departments in the university, it may be ensured that participation and involvement of academic staff at all levels is made possible and their suggestions and requirements are duly considered before finalizing the plan proposals to be sent to the Commission broadly within the ceiling allocation indicated for each university.

II. NEW APPROACH FOR DEVELOPMENT IN PLAN PERIOD (1980-85)

23. Prior to the actual formulation of the new development proposals of each of the teaching departments in the universities, it would be necessary to keep in view the new approach indicated in the UGC documents to distinguish between developing departments and well developed departments and to see that:

(a) in the case of developing departments, necessary amounts are made available within the Plan allocation to bring-up their facilities and activities to an optimal level essential for their teaching and general research work and for maintenance of adequate standards;

(b) to identify from amongst developing departments a few departments which have reached a stage of development and therefore, have the potential to become fully developed over the next five years, with the help of some critical inputs and academic guidance. A cluster of such departments could be considered for intensive development during the current plan period; and

(c) in the case of well developed departments to utilize the general plan assistance mainly to make good their deficiencies for teaching programmes. In addition, such departments may also be requested to prepare additional proposals outside the Plan ceiling suggested, obtain assistance for their activities, on the basis of merit, from the various quality improvement programme and research support available from the Commission. Such programmes should be well defined and time-bound and must have specific academic accountability. These proposals should be prepared separately and sent to the Commission for consideration.

24. For purposes of determining the state of development of each department, appropriate criteria with regard to the infrastructure facilities, faculty strength, supporting technical staff, student enrolment at different levels, types of academic teaching and research activities undertaken and output of the departments could be taken into account as indicated in

the criteria suggested in Annexure I. These criteria are not to be rigidly applied since the situation would differ from subject to subject, from experimental sciences to theoretical disciplines and from university to university. If the university considers it essential to depart from these criteria, the criteria adopted by the university could be indicated. The university, on the basis of these criteria, may group its existing departments into three categories mentioned above.

25. The university is also requested to keep in view, in this connection, the concept of formation of schools of studies to bring together related departments for purposes of developing inter-disciplinary programmes of work and common facilities (Annexure II). The departments should be encouraged to develop inter-departmental collaborative teaching and research programmes of an inter-disciplinary nature and wherever possible should form themselves into schools with well defined courses offered by the constituent units. Such programmes would receive special consideration for financial support.

III. CONTINUING PROGRAMMES FROM FIFTH PLAN PERIOD OR EARLIER (SPILLOVER/COMMITTED)

26. In preparing the development proposals for the current plan period beginning 1st April, 1979 the universities should keep in view necessity of bringing to successful completion, the progrmmes which were initiated during the last plan period and in some cases, even earlier than that. The financial requirements in respect of such ongoing programmes and for which resources were committed but were not fully utilised will, therefore, have to be reflected as "spillover" and shown separately from the new proposals for the current Plan. The time schedule for completing these programmes should also be clearly indicated. The procedure for the calculation of spillover is given in Annexure III.

27. Any development programmes which may have been accepted by the Commission but which may not have been taken up for implementation by 1st April, 1979 could, however, be reviewed and if considered necessary, could be included as new proposals to be taken up in the current Plan period.

28. The expenditure on such continuing programmes is proposed to be provided separately. It would not form, as in earlier plan periods, first charge on the ceiling grant now indicated and which would be in respect of new proposals only.

IV. NEW PROPOSALS FOR (SIXTH) PLAN PERIOD

(i) Plan Period and Funds from Different Sources

29. New proposals for the sixth plan period should be within the ceiling grant now indicated to the university, and excluding the "spillover committed expenditure".

30. In working out the financial estimates in relation to the new development proposals, the sources likely to be available from various sources including the non-plan maintenance grant available from the State Government, development assistance from the State Government as well as any other endowments available to the University should be taken into account so that the total resources available including the grant that may be approved by the Commission would be utilised in a rational manner for meeting to the extent possible the developmental needs of the university and its departments.

(ii) Developmental Needs

31. The proposals for development to be sent to the Commission may be related to the following:

(a) Development of existing university departments for teaching and associated research;

(b) Introduction of new specialisations or areas of study in the existing departments as well as on an inter-departmental basis in relation to the number of students to be enrolled and teachers available, so as to make such courses viable and worthwhile including curricular reforms, restructuring of courses at undergraduate and postgraduate levels suggested by the Subject Panels.

(c) Programmes of reforms such as, modernization of courses giving specific orientation for purposes of local/regional relevance and for major research effort;

(d) Improvement of laboratory and library facilities and services.

(e) Workshop facilities and other central instrumentation, maintenance facilities:

(f) Requirements for academic and supporting technical staff positions and administrative back-up keeping in view full utilization of existing staff positions, both non-plan and plan posts and deploying them in various specialisations. Any senior positions asked for should be clearly identified in the major thrust areas of importance and in relation to the infrastructure facilities already available or to be created during the Plan period;

(g) Introduction of regional language as medium of instruction and needs thereof;

(h) General facilities required by the university for support of the various academic programmes, and

(i) Proposals indicating the specific extension activities to be undertaken by the various departments and the requirements thereof should be clearly stated, after indicating the manner and extent to which the existing facilities would be utilised for promoting such extension activities. Priority may be given to participation in the National Adult Education Programme in an effective manner.

(iii) Priorities and Phasing of Proposals

32. The new proposals to be sent the University Grants Commission may be grouped in three categories within the ceiling grant indicated: First priority upto 50% of the ceiling grant suggested and second and third priority upto 25% each of the suggested ceiling. The schedule for implementation of these proposals upto March 1983 in a phased manner should be indicated.

(iv) Suggested Limits for Expenditure for Different Purposes

33. Buildings: In the matter of utilisation of the available grants in the next plan period, the universities may spend upto 20% of the ceiling grant for construction of buildings required for academic programmes viz. class rooms, laboratories, workshops, library and similar facilities.

34. Academic and other staff and Faculty Improvement: Similarly the universities may utilise 20% to 25% of the grant indicated for purposes of

creating new posts of academic staff, technical supporting staff and staff required for providing administrative back-up to the teaching departments. This may include faculty improvement programmes component also to enable young teachers to improve their qualifications by further training etc. by keeping abreast of latest research and extension of the frontiers of knowledge in the relevant/related fields/disciplines. The creation of new posts, if any, in developed departments should be very carefully examined and kept at a minimum so that other departments in the developing category could bring their staff strength to the required level as per UGC norms.

35. Laboratory Equipment and Library Books & Journals: The remaining 55% to 60% of the allocation indicated would, therefore, be available, for purposes of equipment required for teaching and research, creation of central instrumentation facilities, augmentation of the workshop for repair and maintenance of the equipment, equipment required for library to provide for reprographic and other facilities and for purchase of library books and journals for the central library as well as the departmental libraries required to support the on-going academic programmes of teaching and research.

36. Maintenance of Equipment: At least 10% of the equipment grant should be set apart for repairs and maintenance so as to ensure that no equipment would remain idle and is fully commissioned to use. This provision cannot be diverted to any other purpose without reference to Commission.

V. Pattern of Assistance and Sharing Basis

37. The pattern of assistance and the sharing basis for various projects in the development programmes for universities are given in the Annexure IV

VI. University Centres for Postgraduate Centres for Postgraduate Studies

38. Universities which have already established university centres for postgraduate studies may prepare the departmental proposals for existing departments as well as new departments of such centres,

separately and send them along with the proposals for the main campus departments. The guidelines indicated for the universities proposals and the norms prescribed for postgraduate courses in Science. Humanities and Social Sciences subjects should be kept in view so that the existing departments could be brought to the required level of facilities and staff.

Annexure-I

Some Criteria suggested for reckoning the University Departments in the Developed or Developing Category (as on 1st October, 1978)

(Ref: Paras 8 & 9 of Guidelines)

1. All departments which are participating in the UGC programmes of (i) Centres of Advanced Study and (ii) Special Assistance to Selected Departments. are to be considered as belonging to the Developed Category

2. In the case of all other departments the following criteria should be applied to determine whether they belong to Developed or Developing Category. These criteria are not to be applied rigidly, as situations vary from subject to subject and university to university. If a department scores 10 or more points out of possible 16 points given below, such a department could be considered as belonging to the developed categories.

3. The criteria below have been suggested for university departments mainly engaged in postgraduate teaching and research. However, where the department has teaching responsibility for undergraduate classes also an additional 4 staff members may be added to criteria No.I relating to staff strength.

Criteria suggested	For Science Departments	For Humanities & Social Sciences Departments	Suggested points for Scores
1	2	3	4
1. Staff strength (with atleast 2 Professors, and 2 Readers each and 50% of the lecturers with research qualifications)	16 or more	12 or more	3
2. Number of students admitted to the Master's degree class each year.	16 or more	25 or more	1
3. Number of students admitted to M.Phil. or other Post-M.A./M.Sc. courses in special areas.	10 or more	10 or more	1
4. Total number of full time research students working for Ph.D. degree and average annual output of Ph.Ds. (taken as a 5 year average)	20 or more 5 or more (in the case of Theoretical Science, 2 or more)	20 or more 3 or more	2
5. Number of major fields/ areas (Thrust) of specialisation in the department (only those areas which have atleast 2 specialist staff should be counted).	3 or more	3 or more	1

1	2	3	4
6. Number of on-going research Projects supported by various funding agencies (each scheme with not less than Rs. 10,000 p.a.)	5 or more	3 or more	3
7. Are the library facilities satisfactory—including books & journals subscribed	(i) over 2000 titles (multiple copies of the same back to be taken as one title) (ii)An average of 100 new books added each year (iii) At least 20 journals currently subscribed and with back volumes for past 20 years or so.		2 pts. in case of Humanities and Social Sciences and one point in case of Science Departments.
8. (a) Are the laboratary facilities (including equipmnt) adequate to support present teaching and research training programmes (total value of equipment not less than Rs. 5 lakhs at current prices)	Yes/No	Not applicable	1pt.

1	2	3	4
	(b) Are there any specialised laboratary facilities in major areas of research in the department (total value of such equipment above Rs. 10 lakhs)	Yes/No	Not applicable
	(c) Is there adequate Technical supporting staff, say a ratio of 1:3 (teaching staff)	Yes/No	Not applicable
9.	Has the department been invited by UGC to participate in:		
	(i) Departmental Research Support OR Area Studies Programme.	Yes/No	Yes/No 1
	(ii) College Science Improvement Programme OR COHSSIP— University Leadership Project.	Yes/No	Yes/No 1
	(iii) Has the Department organised Summer Institute Seminars, Refresher Courses etc. in past 5 years.	5 ormore	5 or more 1
10	Has the staff been invited to participate in the following:		
	(i) National Lectures Scheme of UGC.	Yes/No	Yes/No
	(ii) National Fellowships Scheme		Yes/No
	(iii) National Associateships	Yes/No	Yes/No
		Total Points	16

Annexure II

Guidelines for the Constitution of Schools in the Universities

1. In Universities where the existing departmental and faculty pattern continues to operate Schools/Centres may be formed by grouping together departments which have common programmes & which can interact in the matter of organising common courses and research/programmes.
2. Such Schools/Centres may be administered by committees which may be formed with the concerned heads of departments and some other colleagues in the departments who are specialists in the areas or specialities concerned.
3. The Convenorship of the Schools/Centres may be by rotation among the heads of departments who are members of the Committee.
4. The Committee may meet as often as there is need but no less than twice a year.
5. The Committee may deal with the following topics, besides any other matters pertaining to the schools:

   (a) To identify and organize interdisciplinary courses such as Life Sciences, Marine Sciences, Environmental Sciences, etc., or courses which would help breaking down barriers between departments and promote greater academic co-operation between them.

   (b) To identify and develop new areas of research in the interdisciplinary area pertaining to the school.

   (c) To organise M.Phil./pre-Ph.D. Inter-disciplinary courses in the School.

   (d) To review the progress of research schemes undertaken in an inter-disciplinary basis.

   (e) To organise seminars and discussion groups and such other activities including summer institutes conferences etc. relevant to the school

(f) To recommend scholars and fellows in the research schemes jointly undertaken by the teachers in the school and to assess their progress.

(g) To decide how to allocate the budget for common programmes made available by Departments, the University and any other agencies.

(h) To decide the manner of utilisation of facilities such as equipment, laboratories etc. placed at the disposal of the school by the Departments, University and any other agencies.

6. The School may through the University approach the University Grants Commission and other funding agencies, for separate earmarked funds for common programmes.

While it may not be possible to give an exhaustive list of schools that may be set up a few examples are given below:-

School of Earth Sciences
School of Life Sciences
School of Environmental Sciences
School of Marine Sciences
School of Energy Studies
School of Basic Medical Sciences
School of Population Studies
School of Historical Studies
School of Regional Studies.
School of Behavioural Sciences.

Annexure III

Procedure for the Calculation of Spillover from Earlier Plans to Sixth Plan

The following procedure may be followed for identifying items and calculating amount for spoil-over/committed expenditure under Fifth Plan which would be seperated from Sixth Plan allocation of the University from general development:

(A) Recurring

(i) Staff

Salary payable for the teaching and non-teaching staff approved by the Commission in the Fifth Plan upto 31.3.1981.

(ii) Junior Research Fellowships

Amount payable towards fellowship and Contigencies for the Fellowships selected upto 31.3.1979 against Junior Research Fellowships to the University on the basis of Fifth Plan Visiting Committee recommendations upto the end of their tenure as per fellowship rules.

(iii) Miscellaneous

Amount approved per annum for items of recurring nature approved under Misc. Schemes for the period ending 31.3.1981.

(B) Non-Recurring

(i) Books & Equipment

Amont paid upto 31.3.1980 against the allocation approved for these items during Fifth Plan. Any allocation not utilised by this date would lapse.

(ii) Buildings

(a) Amount payable after 1.4.1979 within the approved amount in respect of all building projects construction of which has

actually been started.

b) In case the estimates/expenditure exceeds the amount already approved and the Commission approves the increased expenses, the Commission's share of the excess expenditure over and above the amount already approved under Fifth Plan will not be treated as spill-over but as a first charge on Sixth Plan.

c) Proposals for buildig projects approved by the Commissions either as a part of Fifth Plan or outside Fifth Plan but on which work was not started and the university was advised to defer them may be considered alongwith the Sixth Plan proposals.

Annexure IV

Pattern of Assistance to Universities for Development of Postgraduate/or Undergraduate Teaching and Research Facilities during Sixth Plan (1980-85) under Institutional Development Schemes

Sl No.	Scheme/Project	U.G.C. Share
1	2	3.
A.	Additional Staff, Professor, Reader, Lecturer, Technical Staff, Library staff and Administrative supporting staff for academic programmes	100%
B.	Equipment (for teaching/research, workshop and library Services).	100%
C.	Books and additional journals.	100%
D.	Faculty Improvement Programmes.	100%
E.	Extension Programmes and services including related training programmes, continuing education and cultural activities.	75%
F.	Buildings.	
	(i) Academic Building	50%
	(ii) Workshop Shed	50%
	(iii) Animal House/Green House and other ancillary facilities	50%
	(iv) Library Building	50%
	(v) Staff quarters/Teachers Hostels/Visiting Faculty Complex	50%
	(vi) Men's Hostel	50%
	(vii) Canteen building	50%
	(viii) Women's Hostel	75%
G.	Other Schemes	
	(i) Establishment/Improvement of university presses including machinery and equipment.	50%
	(ii) Health Centres (Building and equipment).	50%
	(iii) Improvement of facilities in the existing Hostels.	50%