# UNIVERSITY GRANTS COMMISSION

**REPORT FOR THE YEAR** 

1963-64

Presented to the Government of India in compliance with Section 18 of the UGC Act, 1956

NEW DELHI

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## UNIVERSITY GRANTS COMMISSION

## 1963-64

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#### UNIVERSITY GRANTS COMMISSION

## ANNUAL REPORT

#### **APRIL** 1963 **TO MARCH** 1964

In compliance with Section 18 of the University Grants Commission Act, 1956 (Act No. 3 of 1956) we have the honour to present to the Government of India a report on the work of the Commission during the year 1963-64 to be laid before both Houses of Parliament.

## CURRENT TRENDS AND DEVELOPMENTS

In 1963-64 the student enrolment in the universities and colleges was 13,84,697\*. There was an increase of 1,12,031 over the enrolment in the previous year. The number of universities has increased from 55 to 61, and of institutions deemed to be universities under Section 3 of the UGC Act from 6 to 9. The number of colleges functioning in the country in 1963-64 was 2,111 as against 1,938 in 1962-63. There was thus a significant expansion in the field of higher education during the year which necessitated extension of the existing facilities along with the improvement of quality.

The Commission's views and policy regarding the establishment of new universities were stated in the reports for 1961-62 and 1962-63. Before any new universities are established, it would be desirable for the State Governments concerned to prepare, in consultation with the UGC, a perspective plan for the next 5 to 10 years taking into account the available resources and facilities and the needs for a further development and expansion of higher education.

The Commission continued to provide grants to universities and colleges for strengthening their staff, equipment, libraries, laboratories and the expansion of other facilities. As in previous years financial assistance was also given for the provision of essential amenities such as hostels, staff quarters, non-resident students centres etc. In 1963-64 the Commission approved a scheme for helping colleges to organise textbook libraries. The Commission increased its contribution to the students aid fund and accepted a proposal for setting up 'students homes' in the universities to provide library and reading room facilities for quiet study outside the regular hours of work.

Several aspects of the problem of improving the quality and raising the standard of achievement in the field of higher education were subjects

<sup>\*</sup>Inclusive of the estimated enrolmnt of 2,00,000 in institutions and classes under the jurisdiction of the Board of Intermediate Education, U.P..

of enquiry by a number of expert committees. The Commission has taken steps and initiated schemes in accordance with their recommendations. Some of the committees appointed to examine the existing syllabi of teaching and facilities for research in various subjects of study with a view to their improvement and modernisation have completed their reviews. The programme of seminars and summer schools sponsored by the Commission to acquaint teachers with new developments in their respective fields of work and to provide them with opportunities for mutual discussions and exchange of ideas yielded gratifying results. It was decided to develop 26 university departments, to begin with, as centres of advanced study in order to encourage 'the pursuit of excellence' at the postgraduate and research levels. Some of these centres have started functioning during the year and grants were sanctioned to them for additional teaching/research staff, library books and journals, science equipment, additional laboratories and other essential academic facilities. Some of the centres have also received substantial assistance from the UNESCO.

Adequate salaries and the provision of essential amenities and incentives for the teaching profession are an important factor in the maintenance of proper standards of education. Besides upgrading the salaries of university and college teachers to some extent, the Commission approved other measures for teachers' welfare. The Commission decided to give financial assistance to universities to enable them to invite distinguished teachers and experts in various fields of academic work. Assistance is given to teachers in universities and colleges for research or learned work. The services of selected teachers are utilised after their superannuation for teaching/ research under a scheme approved by the Commission. Travel grants are made available to teachers and research workers to/enable them to visit and work at centres of research or advanced studies in the country and for attending conferences abroad. Grants are given to universities and colleges for the construction of staff quarters. The Commission has decided to enable universities to construct teachers' hostels to supplement staff quarters which in most universities are very inadequate for their needs.

## DEVELOPMENT OF HIGHER EDUCATION AND RESEARCH

For the promotion and co-ordination of university education and for the determination and maintenance of standards of teaching, examination and research, the Commission is authorised under Section 12 of the UGC Act (Act No. 3 of 1956) to allocate and disburse grants to Central and State universities for development or for any other general or specified purpose.

Grants for the development of higher education in arts, science and commerce are being provided by the Commission. Development programmes in the fields of medicine, agriculture, engineering and technology are being promoted by the different Union Ministries and State Departments concerned. The Commission provides limited grants only to engineering and technological institutions or departments which are run and maintained by the universities. As in the past the Commission continued to give high priority to the development schemes of the universities for improving the quality and strength of the teaching staff, purchase of books and of scientific equipment, extension of library and laboratory facilities, construction of hostels and staff quarters. The total grants paid in 1963-64 to the Central and State universities including institutions deemed to be universities are indicated in the following statement:

	Plan Projects		Grants Paid (in rupees)
1.	Development of Science subjects		1,52,52,577
2.	Development of Humanitics and Social Sciences		95,99,122
3.	Development of Engineering and Technological		
	Education	••	1,13,89,631
4.	Miscellaneous schemes [revision of salary scales, construction of hostels, library buildings and staff quarters, introduction of the three-year degree		
	course, provision of student amenities etc.]	••	3,97,48,942
	TOTAL	_	7,59,90,272

## Visiting Committees

The development proposals of the universities and institutions deemed to be universities which are within the purview of the Commission (excluding those recently established) have been assessed by visiting committees appointed for the purpose. Of the total provision during the Third Plan up to 31st August 1964 amounting to nearly Rs. 29.76 crores\* the sum allocated for the development of science departments is Rs. 13.34 crores and Rs. 8.47 for the humanities, the balance being provided for general schemes.

The total grants paid during 1963-64 for higher scientific education and research amounted to Rs. 1.53 crores. Payments for the purchase of science equipment amounted to Rs. 59.34 lakhs and for the construction of laboratory buildings to Rs. 43.98 lakhs. For the purchase of library books in science Rs. 17.47 lakhs were paid to the universities. The balance of about Rs. 33 lakhs was made available for appointment of additional staff etc.

For the Third Plan period, Rs. 8.47 crores were allocated for the development of teaching and research in humanities and social sciences. This amount approved on the recommendation of the visiting committees is meant for the construction of academic buildings, purchase of books and journals and appointment of staff for teaching and research. The total grants released on this account during 1963-64 amounted to Rs. 95.99 lakhs. Payments for library books in humanities and social sciences amounted to Rs. 17.50 lakhs.

<sup>\*</sup>These grants cover the development schemes of university departments in science subjects, humanities and social sciences, and general schemes viz. hostels, staff quarters, guest houses, non-resident students centres, hobby workshops, health centres and printing presses, sanctioned by the Commission up to 31. 8. 1964,

An amount of Rs. 7.95 crores was allocated to the universities and institutions deemed to be universities for the Third Plan period for general schemes such as hostels, staff quarters, guest houses, non-resident students centres, hobby workshops, health centres and printing presses. Payments in respect of miscellaneous schemes (including the revision of salary scales of teaching staff, introduction of the three-year degree course and construction of library buildings) amounted to Rs. 3.97 crores. For the construction of hostels an amount of Rs. 46.99 lakhs was paid to the universities during 1963-64. For the construction of library buildings the total payments amounted to Rs. 22.17 lakhs. Details of payments made in respect of the development of teaching and research in science subjects, humanities and social sciences, and some of the important miscellaneous schemes are given in the appendices.

The Commission had suggested to the universities in 1962-63 that 70 per cent of the allocations made to them during the Third Plan peried would for the time being be available to them. After reviewing the pace of development in the various universities and the expenditure incurred by them up to 1962-63, the Commission decided to permit the universities to incur expenditure beyond the 70 per cent limit, as and when necessary, but within the approved allocations.

## Engineering and Technological Education

Against a provision of Rs. 6.50 crores for the Third Plan made for the development of engineering and technological education in the universities and the institutions maintained by them, the Commission has so far sanctioned development grants amounting to Rs. 3.29 crores for the current Plan period (Rs. 1.78 crores for buildings, equipment, books etc., and Rs. 1.50 crores for staff and maintenance). In addition to the grants mentioned above there was a spill-over of about Rs. 3.35 crores in respect of the schemes approved during the Second Plan but carried over to the next Plan period. Thus the total commitment amounts to Rs. 6.63 crores.

Grants actually released to the universities for the development of engineering and technological education during the first three years of the current Plan period were as follows:

Year	Grants Paid
	(in rupees)
1961-62	1,17,72,399*
1962-63	97,44,744*
1963-64	1,13,89,631*
Total	3,29,06, 774

<sup>\*</sup>These figures are inclusive of grants paid for upgrading salary scales of technical teachers, construction of hostels for engineering students and award of fellowships in engineering & technology.

The release of grants sanctioned is phased according to the progress in the implementation of approved projects. The details of the grants paid in 1963-64 are given in appendix IV. Grants are provided by the Commission for the development of engineering and technological education to the extent of 50 per cent of the approved expenditure for undergraduate courses and on a cent per cent basis for postgraduate studies.

During the year under review there were 118 institutions in the country conducting courses in engineering and technology for the first degree. Of these only 30 institutions/departments run and maintained by the universities were under the purview of the Commission. Several steps were taken in these institutions and departments to meet the emergency needs of the country for graduate engineers.

At 9 university institutions the intake in the existing undergraduate courses was increased by 517 from 1,423 to 1,940. New undergraduate courses were started in metallurgy and chemical engineering at Roorkee University, in pharmacy at Jadavpur University and in chemical engineering at M.S. University, Baroda. Special degree courses of  $2\frac{1}{2}$  to 3 years' duration for science graduates were started in civil and tele-communication engineering at Roorkee University with an intake of 60 and 30 respectively. Similarly, courses in civil, electrical, mechanical and tele-communication engineering for science graduates were also started at Osmania University with a total intake of 100, and in civil engineering at Andhra University with an intake of 30. A part-time degree course of  $4\frac{1}{2}$  years' duration has been started at Osmania University for the benefit of diploma holders in engineering. The present intake of this course is 80.

As a result of the recommendations of the Committee on Postgraduate Engineering Education and Research appointed in 1959 under the Chairmanship of Prof. M.S. Thacker, postgraduate courses of two years' duration have been introduced at various universities as per details given in appendix V.

The Commission extended assistance to the engineering/technological institutions and departments maintained by universities for the provision of essential amenities for students such as water coolers, canteens, common rooms, dispensaries, cycle sheds, etc. Grants amounting to Rs. 2.88 lakhs were sanctioned for this purpose during 1963-64. The Commission also decided to give grants to the universities concerned for the construction of staff quarters.

During 1963-64 the Commission awarded 378 junior fellowships, each of the value of Rs. 250 per month, to students of various postgraduate courses in engineering and technology. An amount of Rs. 6.62 lakhs was paid on this account. Thirty fellowships, each of the value of Rs. 400 per month, were awarded during the year for advanced study and research in engineering and technology beyond the postgraduate degree.

#### Agricultural Education

Six agricultural universities, constituted by Acts of State Legislatures, are at present functioning in the country. Their names and the years in

which they were established are given below:

	Name of the University		Year of Establishment
1.	U.P. Agricultural University, Pantnagar		1960
2.	Panjab Agricultural University, Ludhiana		1962
3.	Udaipur University, Udaipur *		1962
4.	Orissa University of Agriculture & Technology,		
	Bhubaneswar	••	1962
5.	Andhra Pradesh Agricultural University,		
	Rajendranagar, Hyderabad	•••	1964
6.	University of Agricultural Sciences, Hebbal,		
	Bangalore	••	1964

The Indian Agricultural Research Institute, New Delhi was recognised as an institution deemed to be a university in 1958. In 1963-64, 48 agricultural colleges were functioning in the country. Facilities for education in agriculture at the degree level were also available in 18 multifaculty colleges.

An amount of Rs. 17 crores has been made available to the Central Ministry and State Departments of Agriculture in the Third Plan for education in agriculture and veterinary science at the university level. The Commission has emphasised the need for taking immediate and effective steps to improve the quality of agricultural education. The recommendations of the committee appointed by the Commission to examine the question of the establishment of agricultural universities were given in the report for 1962-63.

In consultation with the Ministry of Food & Agriculture the UGC appointed a review committee under the chairmanship of Dr. A.C. Joshi, Vice-Chancellor, Panjab University, to examine problems relating to the improvement of agricultural education. This committee has been requested

- (a) to appraise qualitatively and quantitatively the existing facilities for teaching and research at undergraduate and postgraduate levels and to assess the extent to which research and teaching and extension work could be integrated,
- (b) to lay down norms regarding staff, equipment etc.,
- (c) to examine the syllabi of all the universities in so far as they relate to agricultural education, in terms of the model syllabus already prepared by the Indian Council for Agricultural Research, and to find out whether and how far it has been adopted by the various universities, and further to elicit the reasons in case it has not been adopted and effectively implemented, and

<sup>\*</sup> This has since become a multi-faculty university.

(d) to recommend measures for improvement in regard to curricula, teaching, examination, research and extension work.

The committee has issued a questionnaire to the universities and colleges to ascertain their views on various issues.

On a reference from the Central Ministry of Education, the Commission appointed a committee to examine the scope and standard of education imparted in Institutes of Rural Higher Education.

# IMPROVEMENT OF STANDARDS OF TEACHING AND RESEARCH

One of the important functions of the Commission is to take such steps as it deems fit for the co-ordination and improvement of standards of teaching and research in our universities. The various aspects of the problem of improving quality and raising the standard of achievement in the field of higher education have been examined by a number of expert committees. The Commission has taken concrete steps and initiated several schemes in pursuance of these objectives. Some of the important schemes are described below.

#### Centres of Advanced Study

The Commission earlier decided to give special assistance to some promising departments in the universities, carefully selected on the basis of their work, reputation, existing facilities, and potentiality for further development to function as centres of advanced study. On the advice of a committee, under the chairmanship of Prof. A.R. Wadia, consisting of eminent educationists and scientists, 26 university depatments were selected, in the first instance, for development as centres of advanced study in specific fields during the Third Plan period. These centres are intended to encourage 'the pursuit of excellence', and to improve quality and raise standards at the postgraduate and research levels. They will provide adequate facilities to scholars of outstanding ability for advanced study and research and function on an all-India basis, and wherever practicable, in close collaboration with the national laboratories and other similar institutions. In addition to a nucleus of permanent staff they will have a substantial number of outstanding workers on deputation from other universities and some visiting scholars from abroad. Each such department or centre will be a part of the university where it is located.

The Commission has provided a sum of about Rs. 2 crores for the development of these centres during the Third Plan period. Grants amounting to Rs. 1.91 crores were allocated to 26 university departments proposed to be developed as centres of advanced study. In addition to the grants provided by the Commission, assistance amounting to nearly \$ 6,00,000 under the United Nations Expanded Programme of Technical Assistance has been earmarked for some of the centres in science subjects for the purchase of specialised equipment, for the training of Indian scholars in the USSR and obtaining the services of Soviet Scientists for short periods.

The possibility of procuring additional funds for these centres under other foreign aid programmes is being explored.

A number of eminent Soviet Scientists including Academician N.V. Belov, Institute of Crystallography of the USSR Academy of Sciences, Academician N.A. Krasilnikov, Institute of Micro biology of the USSR Academy of Sciences, Academician N.K. Kochetkov, Institute of Natural Compound Chemistry of the USSR Academy of Medical Sciencess, Professor Y.V. Novozhilov, Vice-Chancellor and Head of the Department of Nuclear Theory and Elementary Particle Theory, University of Leningrad, and Professor I.I. Gurvich, Moscow Geological Prospecting Institute, visited some of the centres and participated in their programmess. This is a continuing programme and more scientists from the USSIR Academy of Sciences are expected to visit and work at the centres up to the end of the biennium 1965-66.

A number of teachers from our universities have already been selected for training in the USSR for the biennium 1963-64 and more are likely to be sent for training during the biennium 1965-66. A part of the scientific equipment from the USSR has already arrived and more iis expected to be supplied before long. The UNESCO has also provided the services of Dr. A.N. Kholodilin as Adviser to the UGC for the implementation of this project.

The centre of advanced study in Radiophysics and Electronices (Calcutta University) has received aid under the Colombo Plan. Siir Lawrence Bragg, Director, The Royal Institution, London, along with a number of scientists from abroad attended the seminar conducted by the Centre of Advanced study in Physics at the University of Madras. Duringg the year 1963-64, Prof. J.E.G. Raymont, Head of the Department cof Oceanography and Marine Biology, Southampton University, U.K..., worked at the Marine Biology Centre at Annamalai University, and Protf. C. Velyachich, Professor of Philosophy, Zagreb University, Yugoslaviaa, was associated with the centre for Philosophy at the Visva-Bharatii, Santiniketan. A number of teachers, scholars, research workers frorm USA, UK, Japan, Belgium, and other countries worked for short periodds at the two centres for linguistics in the Poona and Annamalai universitiess.

The British Council is considering the question of giving aid to the centres and in this connection Sir Charles Morris, Chairman of the University Secondment Committee, U.K., visited India in February 19644. It is understood the British Treasury has given its approval in principle to this aid programme and arrangements for implementing it are expecteed to be finalised shortly.

The Asia Foundation, USA, has agreed to provide assistance oof \$ 30,000 for meeting the urgent foreign exchange needs of the centrees in social sciences, and this may be raised to \$ 100,000 per annum for three years commencing from August 1964. The aid is to be earmarked foor centres of advanced study in sociology, linguistics, history, politicaal science, psychology and law. A statement showing the grants allocated to the centres of advanced sstudy for the current plan period is attached as appendix VI.

## 1Review Committees

Reference was made earlier reports to a number of review committees which were appointed by the Commission to examine the existing syllabiand facilities for teaching and research in various subjects of study, and tto make suggestions for their improvement and modernisation in order tto raise the general level of academic attainment in the universities. The reports of the review committees dealing with Mathematics and Biocchemistry were published in 1962-63. During the year under review the reports of the review committees concerned with Chemistry and Botany were published. These committees have recommended model syllabilfor undergraduate and postgraduate studies and have made other ssuggestions. Some of the main recommendations of these committees are :

- (i) Recognition should be given to sessional tests in assessing the ability of students, and dependence on one comprehensive annual examination at the end of the course should be reduced. 40% of the total marks may be allotted to sessional tests.
- (ii) Symposia and summer schools may be organised for discussion of teaching methods and the system of examination, and for the promotion of researh.
- (iii) There should be a compulsory viva voce examination for the Ph.D. degree.
- (*iv*) Candidates for the Ph.D. degree should attend and conduct seminars and also teach for a minimum period of one year in a university department.
- (v) Active research centres in the universities should receive appropriate grants for development.
- (vi) The teacher-pupil ratio should be improved and there should be suitable provision for administrative assistance to heads of departments.
- (vii) More time should be available for field and experimental work.
- (viii) Publication grants should be povided by the Commission without a matching basis. Research bulletins and journals ought to be published regularly.

The review committees dealing with English, Social Work, Education and Library Science have finalised their reports.

#### (Committee on Standards

The Commission had carlier appointed a committee to make a ssystematic and objective study of the academic standards prevailing in cour universities and to make suggestions for their improvement. The committee circulated a questionnaire to the universities for collecting the

necessary information and also visited some selected universities for discussions and an on-the-spot study of the issues relating to standards. The report of the committee is being finalised.

#### Summer Schools and Seminars

In order to provide opportunities to teachers to acquaint themselves with current developments in their respective fields of knowledge and modern curricula and techniques of instruction, the Commission decided in November 1961 to assist the universities for organising summer schools and seminars. These seminars and summer schools have proved very fruitful, and have provided a stimulus to the participants to improve their professional competence. During 1963-64, 22 seminars, 7 refresher courses, 20 summer schools and 8 conferences were organised with the Commission's assistance. A sum of Rs. 6.25 lakhs was paid to the universities for the purpose.

Four summer institutes for secondary school teachers in Physics Chemistry, Biology and Mathematics were organised during the summer of 1963 in collaboration with the United States Agency for International Development and the National Council of Educational Research and Training, Ministry of Education. The main objectives of these institutes were (a) to establish channels of communication between schools and universities, (b) to improve the competence of the participating teachers by acquainting them with recent developments in their subjects, (c) to strengthen the capacity of teachers to inculcate the spirit of critical enquiry among their students, and (d) to give an opportunity to the participants for close intellectual association with outstanding men in their respective fields of study. The response to the summer institutes for secondary school teachers was most encouraging and it has been decided to expand this important programme. In pursuance of this decision, 16 summer institutes for secondary school teachers were organised during the summer vacation of 1964 in different parts of the country, four in each region of the country, in collaboration with the United States Agency for International Development and the National Council for Educational Research and Training. The U.S. Agency for International Development gave assistance for equipment, some films, and for the deputation of U.S. scientists to participate: in the programme.

It was also decided to hold 16 summer institutes for university and college teachers of science subjects during 1964, in collaboration with the U.S. Agency for International Development. These institutes were intended to deal with specialised fields in Mathematics, Physics, Chemistry and Biology. The objectives of this programme were (a) to provide supplementary in-service training to college and university teachers in science subjects, (b) to enable the participants to keep abreast of the latest advances in their respective fields of work, (c) to acquaint them with modern concepts and ideas, and (d) to provide means and opportunities for discussions and exchange of ideas. These summer schools and institutes have evoked an enthusiastic response from the universities and colleges and have yielded gratifying results.

## General Education

As stated in the report for 1962-63, the programme of general education may be helpful in improving undergraduate courses of study and making them more meaningful, balanced and effective. General education is not an additional subject of study and is in no way opposed to specialisation. It essentially implies a reorientation and modernisation of undergraduate studies in order to raise academic standards and enable our students to have a better understanding of problems relating to presentday life and environment.

Grants for the preparation of suitable reading material were sanctioned to Aligarh, Andhra, Baroda, Bombay, Marathwada and Osmania universities. Seminar for the orientation of teachers in general education were held in the Banaras, Bombay, Gujarat, Nagpur, Panjab, Rajasthan and S.N.D.T. universities. An attempt is being made to compile a suggestive bibliography for the use of teachers and students. Four issues of the quarterly journal on general education started by the Bombay University have so far been published. The Commission has received generous assistance from the Ford Foundation for the programme of general education.

The standing advisory committee on general education appointed by the UGC for reviewing applications for assistance and the progress of significant experiments in general education was re-constituted. On the recommendation of the committee universities were requested to designate senior members of their staff as co-ordinators for liaison between the universities and the advisory committee in all matters pertaining to general education. Co-ordinators in general education have been designated by 42 universities. It was decided to convene a conference of these co-ordinators to discuss problems relating to the implementation of the general education programme.\*

## Examination Reform

The Commission provided assistance to the universities of Aligarh, Baroda and Gauhati for setting up examination reform units. A report on the investigations undertaken by the Aligarh Muslim University is under preparation. The examination reform unit of the Gauhati University started functioning with effect from 1st June, 1963. The Commission sanctioned a non-recurring grant of Rs. 14,400 and a recurring grant of Rs. 26,000 per annum for 3 years for this unit. A brochure entitled *Three Studies in Examination Techniques* by Dr. H. J. Taylor, Vice-Chancellor, Gauhati University, has been published. The Commission agreed to

<sup>\*</sup>The conference was held on September 3 and 4, 1964.

continue its assistance to the examination reform unit in the M.S. University of Baroda up to March, 1965.

## Committee on Area Studies

A committee was appointed under the chairmanship of Shri B. Shiva Rao to examine the question of the development of area studies, i.e., studies in respect of the history, culture, language etc., of different countries and regions particularly far eastern, middle Asian, African and Latin American countries. The committee has recommended that:

- (i) It is desirable to introduce regional studies of different parts of the world at the university stage and there is need for a large number of Indian scholars who are adequately acquainted with the history, social and economic background of particular regions.
- (ii) Centres of area studies might be set up in a few selected universities to start with, and members of the teaching staff of appropriate departments might participate in the programme.
- (iii) Scholars might be selected for deputation to specific areas for a limited period to undertake intensive studies of the problems of the regions concerned.
- (iv) Priority might be given in the first instance to regions which India is more actively concerned, such as China, Japan, South-eastern Asia, Africa and the Middle East.

The Commission generally accepted the recommendations made by the committee on area studies. Detailed proposals are being worked out with the approval and assistance of the External Affairs Ministry and the Ministry of Education.

## **NEW UNIVERSITIES**

The type, location, size and pattern of a new university need detailed and careful consideration. Generally speaking it costs less to expand facilities in the existing universities than to set up new universities. Apart from this the establishment of a new university can be considered only in terms of the contribution it is likely to make to raise the quality and standards of education, and in relation to the availability of competent teachers and adequate financial resources. As the funds available with the Commission for disbursement to the universities for their development schemes are very limited and have to be allocated, in an order of priority, it is becoming increasingly difficult and may even not be possible to provide financial assistance to the new universities set up in the States, sometimes even without reference to the Commission.

State	Number of Universities
Andhra	4
Assam	1
Bihar	6
Gujarat	3
Jammu and Kashmir	1
Kerala	1
Madhya Pradesh	7
Madras	2
Maharashtra	6
Mysore	4
Orissa	2
Punjab	4
Rajasthan	3
Uttar Pradesh	9
West Bengal	. 7
Delhi	. 1
TOTAL	61

The Statewise distribution of the 61 universities is given below :

The new universities that have recently come into existence are Andhra Pradesh Agricultural University, Rajendra Nagar (Hyderabad), University of Bangalore, Indore University, Jiwaji University, Gwalior, Ravi Shankar University, Raipur and the University of Agricultural Sciences, Hebbal (Bangalore).

On the recommendation of the committee appointed to examine the question of setting up new universities, the Commission approved in principle the establishment of a second university in Assam during the Fourth Plan period. The Commission also recognised the need for establishing universities in Goa and Pondicherry during the Fourth Plan period, and expressed the opinion that these universities should develop certain special features and courses of study in conformity with the local requirements and facilities.

#### Institutions Deemed as Universities

Section 3 of the UGC Act provides that "the Central Government may on the advice of the University Grants Commission declare by notification in the official gazette that any institution for higher education other than a university shall be deemed to be a university for the purposes of this Act."

The following institutions were declared as institutions deemed to be universities by the Government of India on the advice of the Commission up to 1963-64:

(i) Indian Agricultural Research Institute, New Delhi,

- 14
- (ii) Indian Institute of Science, Bangalore.
- (iii) Indian School of International Studies, New Delhi.
- (iv) Gurukul Kangri Vishwavidyalaya, Hardwar.
- (v) Jamia Millia Islamia, New Delhi.
- (vi) Gujarat Vidyapeeth, Ahmedabad.
- (vii) Kashi Vidyapeeth, Varanasi.

The Commission has since recommended to the Government of India that the Tata Institute of Social Sciences<sup>\*</sup>, Bombay, and the Birla Institute of Science and Technology<sup>\*</sup>, Pilani, may be brought within the purview of Section 3 of the UGC Act.

#### **CENTRAL UNIVERSITIES**

### Maintenance Grants

Under Section 12 of the UGC Act one of the functions of the Commission is to 'allocate and disburse grants to universities established or incorporated by or under a Central Act for the maintenance and development of such universities or for any other general or specified purpose. In pursuance of this grants are being given to the universities of Aligarh, Banaras and Delhi and to Visva-Bharati for maintenance as well as development on a cent per cent basis. Such grants are also being provided to the Indian Institute of Science, Bangalore and the Indian School of International Studies, New Delhi. The Commission meets 90% of the approved deficit of the constituent colleges of Delhi University and 50% of the approved expenditure incurred by them on the construction of college buildings.

The Commission agreed that the Banaras Hindu University might accept assistance from the State Government for the establishment of an extension wing in the College of Agriculture. The committed expenditure after 1965-66 would be paid by the Commission as a maintenance grant.

On a reference from the Visva-Bharati and the Union Ministry of Education, the Commission decided that the Institute of Rural Higher Education, Sriniketan, which was affiliated to the National Council of Rural Higher Education, might be integrated with the university. The Commission agreed to make available the necessary recurring and nonrecurring grants to the Visva-Bharati for the maintenance of the institute renamed as Palli Shiksha Sadna.

Details of the maintenance grants paid to the central universities and institutions deemed to be universities during 1963-64 are given in appendix VII.

## Recommendations of Vice-Chancellors of Central Universities

The Vice-Chancellors of central universities meet periodically to discuss problems of mutual interest. In their meetings on 5th April 1963 and 30th March 1964 held at Banaras and Delhi respectively, the following

<sup>\*</sup>Since declared as an institution deemed to be a university by the Government of India.

suggestions inter alia were made:

- (a) Admissions to various courses in the central universities should be determined on merit and made on an all-India basis to the extent possible.
- (b) Assistance should be provided to the universities for better hostel facilities. It was pointed out that the physical fitness of students (both resident and non-resident) was far from satisfactory.
- (c) Much of the administrative work in the central offices and departments could be reduced if powers and work were suitably delegated. Non-academic work should be done outside the departments and their administrative burden ought to be reduced to the minimum. It was suggested that the heads of departments should work out arrangements for delegation of such work and responsibility.

These recommendation are under examination.

#### Campus Development

The Commission has been providing grants to central universities for schemes relating to the improvement of university campuses, the construction of administrative buildings and provision of essential services. Grants amounting to Rs. 12.65 lakhs were paid to the four central universities for campus development as indicated below:

Visva-Bharati	 Total	••	Rs. 3,32,500 Rs. 12,65,842
Delhi University	••		Rs. 1,60,000
Banaras Hindu University	•••	•••	Rs. 5,48,342
Aligarh Muslim University	••	•••	Rs. 2,25,000

#### Medical Colleges of Aligarh and Banaras

The Commission accepted the following recommendations of a committee appointed to assess the requirements of the medical college in Aligarh Muslim University:

- i) The number of admissions to the medical college should be progressively increased from 40 to 70 depending upon the facilities available. The intake could be increased to 100 at a later stage.
- ii) The duration of the course should be  $4\frac{1}{2}$  years for pre-clinical and clinical studies and one year for compulsory housemanship before permanent registration.
- iii) Immediate steps should be taken to build and equip the

hospital in the campus of the university for which a sum of Rs. 60 lakhs was already available with the university.

- iv) The scales of pay for the teaching staff should be the same as already decided by the Commission and the qualifications for the recruitment of the academic staff should be in conformity with those laid down by the All India Medical Council. The scales of pay of the other staff would be the same as for the corresponding staff in the other departments of the university.
- v) The estimated expenditure would be as follows:

Non-Recurring	Rupees in lakhs
College building	45
Laboratory furniture	8
Staff quarters	50
Hostel	20
Equipment	27
Books & journals	3
TOTAL	Rs. 153 lakhs

#### Recurring

Maintenance expenditure excluding expenditure on the pay of the staff and maintenance of the Rs. 5 lakhs hospital.

vi) An annual grant of Rs. 50,000 be provided for maintenance obf the Institute of Opthalmology.

During 1963-64 an 'on account' grant of Rs. 5.88 lakhs was paidd to the University for its medical college.

The Commission decided to assist the Banaras Hindu University forr the construction of a students ward of 32 beds in the S.S. Hospital andd desired that the general question of the maintenance of the S.S. Hospital mght be taken up with the State Government of Uttar Pradesh. A granut of Rs. 21.5 lakhs was paid to the university during 1963-64 for itets medical college.

## COLLEGES

The pressing need for improving the quality and standards oof ecucation in our colleges requires no emphasis. Nearly 85% of the studentsts receiving higher education in the country are enrolled in affiliated colleges.s.

The distribution of colleges in 1963-64 according to the courses of study is indicated in the following table:

Course of Study	University Colleges	Affiliated Colleges	Total 1963-64	Total 1962-63	Increase in the number of Colleges
Arts, Science & Commerce	68	1,350	1,418	1,283	135
Engineering, Technology & Architecture	14	79	93†	90	3
Medicine	5	79	84	74	10
Pharmacy*		3	3	2	1
Ayurveda		9	9	8	1
Dental		8	8	7	I
Nursing		5	5	4	1
Law**	11	50	61	54	7
Agriculture**	8	40	48	47	1
Veterinary Science	5	14	19	18	1
Oriental Learning	3	160	163***	168	5
Physical Education	_	5	5	5	
Music and Fine Arts	5	33	38	32	6
Education**	9	148	157	146	11
Total	128	1,983	2,111	1,938	173

(Figures shown below do not include university teaching departments)

The number of colleges has been rising steadily in response to the demand for higher education. In 1963-64 the number of affiliated and university colleges in the country was 2,111 as against 1,783 in 1961-62 and 1,938 in 1962-63. These figures do not include Intermediate colleges under the Board of Intermediate Education, U.P. Of the 2,111 colleges

<sup>&</sup>lt;sup>†</sup>Institutes of technology, university teaching departments and colleges of pharmacy have been excluded. Inclusive of these the figure is 118.

<sup>\*</sup>During 1963-64 one new college of pharmacy was set up at Goa, raising the total from two to three. Facilities for instruction in pharmacy at degree level exist in 8 other institutions which include 3 university departments (not shown here) and five colleges of technology/medicine/science which have been shown under the relevant heads of the above table.

<sup>\*\*</sup>Certain arts, science and commerce colleges also have facilities for instruction in professional subjects, like law, agriculture and teachers' training. During 1963-64, 50 such colleges had facilities for teachers' training, 44 for law and 18 for agriculture at degree level. Including university teaching departments and the colleges referred to here, the total number of centres was 220 for teachers' training, 68 for agriculture and 119 for law.

<sup>\*\*\*</sup>Twenty oriental colleges under Osmania university have been excluded since, as reported, they have not been given the status of affiliated colleges.

functioning in 1963-64, 1,485 colleges were being run by private manage-ments, 498 were Government institutions and the remaining 128 were; university colleges.

During 1963-64, 135 new arts, science and commerce colleges were esablished and the number of women's colleges rose from 235 in 1962-533 tc 254 in 1963-64.

The distribution of 1,707 affiliated colleges (which furnished thee reevant information) according to the size of enrolment is indicated in the following table:

Erolment		Number of colleges	Percentage of the total number
Les than 100		282	16.5
Beween 100 and 500		714	41.8
50 and above but less than 1000	•••	397	23.2
100 and above but less than 2000	•••	268	15.7
200 and above		46	2.8
		1707	100.0

The Commission has initiated several schemes for assisting collegess to improve academic and physical facilities. Grants are available too ccleges which have been brought under Section 2(f) read with Sectionn 2f(1) (d) of the U.G.C. Act and are for that reason eligible for assistance e under the approved terms and conditions relating to each scheme. Al st:tement of development grants paid to colleges for various purposes duringg 153-64 is given in Appendix VIII.

## Committee on Collegiate Education

In September 1962 the Commission appointed a committee too recommend the measures necessary for improving collegiate education and to make suggestions regarding the effective utilisation of the resources available for the purpose. The committee held four meetings and made the e following recommendations:

- i) No college should be granted affiliation by a university unless is the basic requirements relating to staff, library and laboratory y facilities etc., are provided at the very outset. It would be e necessary to adhere to insist on minimum standards and d requirements which every college seeking affiliation should d fulfil.
- ii) Tutorial instrucion should be provided at the undergraduate e stage, if necessary by reducing the number of formal lectures.

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Seminars ought to be provided for honours and postgradiate students.

- iii) A system of internal assessment or evaluation of tutorial and seminar work and periodical tests would be very useful. A certain minimum percentage of marks should be obtained in the internal evaluation in order to determine the eligibily of a student to take the university examination.
- iv) Every college should aim at providing reading-room facilities for at least 25 per cent of the students on the rolls.
- v) Wherever possible cooperative teaching should be introduced at the postgraduate level among affiliated colleges situatel in the same town. This would enable the colleges to pool heir resources and improve the standards of instruction. Cooperative teaching would eliminate duplication of lecture vork in individual colleges and the time, effort and labour hus saved could be utilised for regular tutorial and semnar work.
- vi) Affiliation in postgraduate courses should be given with discrimination and the possibility of cooperative teaching amongst the colleges in the same area should be taken into account before such affiliation is granted.
- vii) There is need for a further improvement in the salary scals of college teachers. Assistance from public funds for upgraling salaries in colleges and the necessary matching share required for the purpose should be available from one central agency *i.e.* the University Grants Commission.

The committee which has since been enlarged has been requested to suggest the steps necessary for the development of collegiate education in arts, science, commerce and teachers' training courses during the Fourth Plan period.

## Postgraduate Studies

In 1963-64 there were 270 colleges affiliated to various universites which provided facilities for postgraduate courses in arts, science, commrce, education and law. The total enrolment for M.A. during the year was 43, 271 of which 43.2% *i.e.* 18,692 were enrolled in affiliated colleges. The enrolment for M.Sc. in colleges was 7,176. This was 42.2% of the otal enrolment of 17,000.

For the development of postgraduate studies in the humanties (including social sciences) and science subjects financial assistance is bing provided to selected colleges on a sharing basis subject to the prescribed ceilings. The Commission's policy in this regard and the grants available were indicated in the report for 1962-63.

During the current Plan period grants amounting to Rs. 78.13 lkhs (representing the Commission's share of the approved expenditure) lave so far been sanctioned to 66 postgraduate colleges for the development of

Subject		Number of Departments	Grants sanctioned
			(in rupces)
Physcs		26	16,98,000
Chenistry & Biochemistry		39	23,24,000
Mathematics & Statistics	••	35	8,84,500
Botary	•••	21	9,87,500
Zoolegy		24	11,80,667
Geolegy		4	1,38,000
Geography		9	2,45,500
Hom: Science	••	6	3,35,000
Microbiology		1	20,000
	TOTAL	165	78,13,167

165 science departments as per details given below:

During 1963-64 the proposals of 24 colleges were assessed and an amount of Rs. 29.05 lakhs was sanctioned for the development of postgracuate studies in science subjects. An amount of Rs. 21.70 lakhs was released to the colleges concerned for additional staff, and development of library and laboratory facilities during the year. Payments are released in suitable instalments according to the progress in the implementation of the projects approved by the Commission.

Grants were sanctioned to 45 colleges for the development of postgraduate departments in the humanities (including social sciences). The tota) approved cost of the projects sanctioned was Rs. 64.24 lakhs against which the Commission's share of expenditure amounted to Rs. 32.91 lakh: An amount of Rs. 2.88 lakhs was paid to the colleges concerned on this account during 1963-64.

The payments released to the colleges for the development of postgraduate studies in the humanities and science subjects during 1963-64 are shown in appendix XI.

#### Thre:-Year Degree Course

In accordance with the principles and procedure enunciated by the three-year degree course estimates committee, the Commission is providing 50 µer cent of the recurring and non-recurring expenditure within the prescribed ceilings incurred by the universities/colleges concerned on approved items. These grants are intended to enable the institutions concerned to provide the necessary physical and academic facilities for the three-year degree course and to bring about an improvement in the quality of undergraduate education. In the case of central universities and

GGovernment colleges of centrally administered areas grants are paid on a cenent per cent basis.

Up to 1963-64 the Commission approved an expenditure of RRs. 23.41 crores for the implementation of the three-year degree course scheme in 36 universities and 723 colleges. The Commission's share of this expenditure is estimated to be Rs. 11.91 crores (Rs. 6.60 crores—non-recourring, and Rs. 5.31 crores—recurring).

The University of Gujarat and the Rabindra Bharati (Calcutta) inthroduced the three-year degree course during the year under review. TE his course is now the accepted pattern for undergraduate education almost evwerywhere in the country except in the University of Bombay and the statute universities of U.P. The universities providing courses in professional/ teechnical education are outside the purview of the scheme.

Non-recurring grants amounting to Rs. 5.04 crores and recurring grarants totalling Rs. 1.67 crores were disbursed to the universities up to 311.3. 1964 for the implementation of the scheme in the universities and cobbleges concerned. During the year 1963-64, an amount of Rs. 1.44 crorores (Rs. 0.75 crores for non-recurring and Rs. 0.69 crores for recurring expenditure) was paid under the scheme\*. A statement of grants released du uring the Second and Third Plan periods is given below:

	Non-recurring	Recurring (Rupees in crores)	Total
Sececond Plan	2.85	0.13	2.98
<b>Thibird Plan</b> 1961-62	0.81	0.36	1.17
1962-63	0.63	0.49	1.12
1963-64	0.75	0.69	1.44
Total	5.04	1.67	6.71

Recurring grants under the scheme are available for a period of 4 yea:ars only from the year of introduction of the three-year degree course in t the university. Owing to the difficulties experienced by the universities ancid colleges concerned in the utilisation of the non-recurring grants available uncider the scheme, the Commission decided that the admissible non-recurring grants might be utilised by the end of the Third Plan period.

## Misiscellaneous Projects

For the projects mentioned below the Commission has been assisting coll-lleges which have the prescribed minimum enrolment and fulfil the required conditions on the recommendations of the universities concerned

<sup>\* \*</sup>vide statement of disbursement, appendix X.

subject to a normal overall ceiling of Rs. 1.5 lakhs per college during the Second and Third Plan periods:

	Project	Commission's Grant
<b>(</b> i)	Extension of library buildings and purchase of books & furniture.	2/3rd of the approved cost
(ii)	Extension of laboratories and purchase of science equip- ment and furniture.	"
(iii)	Women's hostel	75% of the approved expenditure
(iv)	Men's hostel	50% of the approved cost
$(\mathbf{v})$	Staff quarters	,,
(vi)	Non-resident students centre	Rs. 35,000
(vii)	Hobby Workshop	Building Rs. 10,000
	-	Equipment Rs. 10,000
		Staff & Rs. 2,500 p.a. contingencies for 5 years.

The conditions relating to the minimum enrolment and the prescribed ceiling may be relaxed in exceptional cases on merits. The Commission's grants are of a developmental character and normally are not available for the establishment of new colleges or for enabling colleges to fulfil the conditions of affiliation prescribed by the universities concerned. Grants paid in respect of the schemes mentioned above during 1963-64 have been indicated in appendix VIII.

#### Centenary Grants

Centenary grants have so far been sanctioned to 53 colleges for various projects such as the construction of college buildings, hostels, staff quarters, libraries, laboratories, auditoria and sports pavilions.

During 1963-64 the proposals of Lucknow Christian College, Lucknow, and Government Law College, Bombay, for the admissible centenary grants were approved. A sum of Rs. 1.91 lakhs was paid under the scheme to the colleges concerned during the year. Payments are regulated in accordance with the progress made in the implementation of the approved projects.

## TEACHERS

The success of all plans of development largely depends on the ability and devotion of teachers. The provision of reasonable salaries and the essential amenities and incentives to the teaching profession are an essential factor in the maintenance of proper standards of education. Everything possible should be done to attract a reasonable proportion of our men and women of high intellectual ability to this profession. Besides upgrading the salaries of university and college teachers the Commission has approved other measures for teachers' welfare.

#### Revision of Salaries of University Teachers

As stated in our report for 1962-63, the Commission's assistance is available to universities for the introduction of the following scales of pay for their teaching staff:

Professors	••	Rs. 1000-50-1500
Readers		Rs. 700-40-1100
Lecturers		Rs. 400-30-640-40-800
Instructors		Rs. 300-25-350

Instructors may be recruited as an interim measure if persons with requisite qualifications are not available for appointment as lecturers.

The Commission shares 80% of the additional expenditure required for the introduction of these pay scales provided the universities or State Governments concerned pay the balance and give an assurance that the revised scales of pay will be maintained after the Commission's assistance ceases. Assistance to central universities is provided on a cent per cent basis.

The following 39 universities have so far agreed to introduce the above mentioned pay scales:

Agra	Delhi	Kuruksetra	Poona
Aligarh	Gauhati	Lucknow	Rajasthan
Allahabad	Gorakhpur	Madras	Ranchi
Andhra	Jabalpur	Magadh	Roorkee
Banaras	Jadavpur	Marathwada	Saugar
Bhagalpur	Jodhpur	Mysore	S.N.D.T. Women's
Bihar	Kalyani	Nagpur	Sri Venkateswara
Bombay	Karnatak	Osmania	U.P. Agricultural
Burdwan	Kerala	Panjab	Varanaseya Sanskrit
Calcutta		Patna	
and Visva-Bhar	ati.		

Two universities viz. North Bengal and Punjabi University (Patiala) have scales of pay almost identical with those precoribed by the UGC for university teachers during the Third Plan period.

About 4,000 university teachers have received the benefit of the enhanced scales of pay so far during the Third Plan period.

The Commission considered the question of upgrading salaries in the agricultural universities and expressed the opinion that these should be the same as in other universities, but funds for this purpose should come from the Central Ministry of Food and Agriculture. The Ministry agreed to meet the expenditure consequent upon the revision of salaries of teachers in the agricultural universities in accordance with the scales of pay recommendeded by the Commission. For upgrading salaries in the departments o'agriviculture maintained by other universities, the Commission agreed to provide assistance on the usual sharing basis.

## Revision of Salaries of Teachers in Engineering and Technological Departmentss

The Commission upgraded the salaries of teachers in engineering aroud technological departments/institutions maintained by the universites aas per recommendations of the All India Council for Technical Educaticoon with effect from 1st April, 1960. Assistance is being provided by the Commission for this purpose on a cent per cent basis for a period of 5 years s. So far 14 universities, viz., Aligarh, Andhra, Annamalai, Banaras, Bonbayy, Calcutta, Jadavpur, Madras, Mysore, Nagpur, Osmania, Patna, Sri Vernnkateswara and Utkal have received grants under the scheme.

The Commission is of the view that the present disparity between these salary scales of teachers in the faculty of engineering and technology and thoose in the other faculties is not desirable. It is difficult to draw a sharp line oof demarcation between technology and science, and it is not a satisfactobry thing that teachers of science working in an engineering institution should have a substantially higher scale of pay than teachers of similar or everen better qualifications in non-engineering institutions. It is suggestel that at during the Fourth Plan we should aim at a reasonable uniformity of scalletes of pay for teachers in engineering and other faculties, and steps shoull al:lsco be taken to reduce the present rather large gap in the salary scales of teacherers in the colleges and those in university departments.

#### Revision of Salary Scales of College Teachers

In order to improve the salaries of teachers in affiliated college, there Commission decided to provide assistance to the colleges for introducing the following scales of pay during the Second Plan period :

Principals	Rs. 600-40-800
Heads of Departments	Rs. 400-25-700
Senior Lecturers	Rs. 300-25-600
Lecturers	Rs. 200-15-320-25-500
Demonstrators/Tutors	Rs. 150-10-200

The Commission decided to share 50 per cent of the addiionnaial expenditure required for introducing the revised scales in men's coleggeges and 75 per cent in women's colleges, provided the requisite matching sharrere was available from the State Government or the institutions concenceded. The Commission's assistance would be available for a period of 5 rearrsrs. This benefit can be extended for one more year on the condition that thhe colleges give an undertaking that the revised scales would be maintuinecced after the Commission's assistance has ceased. So far about 14,000 teacherers working in 461 colleges affiliated to 23 universities have received the beneficifit of the above mentioned scales of pay. The Commission extended i it its assistance for the revision of salary scales to teachers in government colleges with effect from 1961-62. During 1963-64 grants were released under the scheme to the Government colleges of Andhra Pradesh, Maharasitra, Guarat and Madras. About 1,266 teachers working in 42 Government colleges are likely to benefit from the Commission's assistance.

The Commission decided to revise the salary scales of professionally qualified library staff to bring them up to the levels of those of teachers working in universities and colleges. Physical directors and instructors possessing the required qualifications have also been brought within the purview of this scheme.

The question of continuing the revised scales on a permanent basis deserves the sympathetic consideration of State Governments since the private colleges concerned do not generally have adequate resources to meet the entire additional expenditure. The Governments of Andhra Pradesh, Gujarat, Kerala, Madhya Pradesh, Orissa and West Bengal have agreed to provide the requisite assistance to the colleges for this purpose.

The question of improving the salary scales available to colege teachers was examined by the committee dealing with collegiate education. The need for a further revision of these pay scales was reiterated. The following scales of pay were recommended:

Principals	• •	Rs. 700-40-1100
Heads of Departments/Senior		
Lecturers		Rs. 500-30-800
Lecturers	••	Rs. 300-20-600

The committee was of the view that on account of the existing disparity between the salary scales in university departments and those in affiliated colleges, it generally became difficult for colleges to recruit and retain qualified staff.\* The Commission accepted the recommendation regarding further revision of salary scales of teachers in affiliated coleges in principle and decided that the possibility of introducing these scales might be explored during the Fourth Plan period.

The grants paid for the revision of salary scales of teachers in unversities and colleges are shown in the statement at Appendix XI.

## Exchange of Teachers

The Commission attaches considerable importance to the programme of exchange of teachers for short periods, and has decided to extend financial assistance to universities with effect from the academic year 1964-65 to enable them to invite from other universities distinguished teachers and experts in various fields of academic work. The broad objectives of the scheme are:

> (a) to utilise as widely as possible the services of talented personnel in our universities and other centres of learning, and

<sup>\*</sup>This was also stressed by the conference of principals convened by the University Grants Commission on May 8 and 9, 1964.

(b) to provide opportunities for the staff and students engaged in advanced studies to come into close and fruitful contact with distinguished persons in various fields of knowledge, and to make expert advice and guidance available to research workers.

Under the scheme the Commission provides an annual lump grant of Rs. 10,000 to a university for meeting the expenditure on the exchange of teachers for short periods in accordance with the rules that may be framed by the university in this regard. In exceptional cases this grant may be raised to Rs. 15,000.

#### Assistance for Research or Learned Work

The Commission extends financial assistance to teachers in universities and colleges for undertaking research or learned work in the humanities (including social sciences) and science subjects. Teachers are often handicapped in carrying on such work in the absence of indispensable equipment and literature. The maximum grant admissible under the scheme is Rs. 5,000 per annum to a teacher for assisting him to purchase books, chemicals, equipment etc., which may not normally be provided by the institution where he works and for helping him to meet any travel expenses incurred in the furtherance of his research project. In 1963-64, 84 teachers in universities and colleges participated in the scheme. The total grant released during this year amounted to Rs. 59,675.

## Utilisation of the Services of Retired Teachers

In 1961-62 the Commission instituted a scheme to enable the universities and colleges to utilise the services of selected teachers after their superannuation. The scheme provides for payment of an honorarium of Rs. 4,000 per annum and an annual grant of Rs. 1000 for contingent expenses.

The Commission agreed to raise the honorarium payable to a teacher under the scheme from Rs. 4,000 to Rs. 6,000 per annum with effect from July, 1964. It was also decided that the teachers concerned might be allowed to accept the honoraria or other facilities provided by the universities or colleges up to a maximum value of Rs. 4,000 per annum with the approval of the Commission.

During 1963-64, 49 teachers in the universities and 19 in colleges, were brought under the purview of the scheme. Grants released for this purpose to the universities and colleges during the period amounted to Rs. 2.94 lakhs. The total number of awards under the scheme has risen to 135.

## Travel Grants

Travel grants are made available to teachers and research workers to enable them to visit and work at centres of research or advanced study in the country. A sum of Rs. 1.53 lakhs was placed at the disposal of 37 universities for this purpose during 1963-64.

The Commission has been giving grants to teachers for foreign travel

to attend international conferences abroad. These grants are available to teachers invited to preside over conferences or their sections or specially selected to contribute papers, provided the sponsoring universities are willing to share 50 per cent of the travel expenditure. During 1963-64 the Commission agreed to assist 29 teachers for this purpose.

## Guest Houses cum Staff Clubs and Staff Quarters

During the year under report proposals for the construction of staff quarters in 20 universities at an estimated cost of Rs. 1.48 crores were approved, the Commission's contribution being limited to Rs. 93 lakhs. The grants paid to the universities on this account during the year amounted to Rs. 25.54 lakhs. An amount of Rs. 3.42 lakhs was paid for the construction of guest houses. The construction of staff quarters was approved in 4 colleges at an estimated cost of Rs. 4.20 lakhs.

In order to meet the serious shortage of accommodation for teachers the Commission decided to assist the universities for the construction of two teachers' hostels, each accommodating about 24 teachers and estimated to cost Rs. 3 lakhs. The Commission agreed to share 75 per cent of the approved expenditure for two hostels, or alternatively, the entire approved expenditure for the first hostel and 50 per cent of the expenditure for the second hostel. The Building Advisory Committee of the UGC worked out the norms and standards for the construction of teachers hostels and these were intimated to the universities for their guidance.

## STUDENT ENROLMENT

There was a considerable increase in the enrolment of students in the universities and colleges during the year under review. The enrolment trends over the last decade are indicated in the following table:

Year		Total enrolment*	Increase over the preceding year	Percentage increase
1953-54		5,80,218	····	
1954-55		6,51,479	71,261	12.3
1955-56		7,12,697	61,218	9.4
1956-57	••	7,69,468	56,771	8.0
1957-58		8,27,341	57,873	7.5
1958-59		9,28,622	1,01,281	12.2
1959-60		9,97,137	68,515	7.4
1960-61		10,34,934	37,797	3.8
1961-62		11,55,380	1,20,446	11.6
1962-63		12,72,666	1,17,286	10.2
1963-64		13,84,697	1,12,031	8.8

The enrolment rose from 5,80,218 in 1953-54 to 13,84,697 in 1963-64. During 1963-64 the enrolment went up by 1,12,031.

<sup>\*</sup>Inclusive of the enrolment in institutions under Boards of Intermediate Education.

S.N	o. Faculty	1961-62	Percentage of total	1962-63	Percentage of total	1963-64	Percentage of total
1.	Arts including				• • • • • • • • • • • • • • • • • • • •		
	Oriental Learning	5,11,940	44.3*	5,35 <b>,</b> 291*	42.1	5,79,049	41.8
2.	Science	3,36,722	29.2*	3,90,174*	• 30.7	4,35,925	31.5
3.	Commerce	1,25,142	10.8	1,21,971*	9.6	1,30,578	9.4
4.	Education	21,718	1.9	25,638	2.0	26,727	1.9
5.	Engineering and						
	Technology	58,168	5.0	68,589	5.4	73,015	5.3
6.	Medicine	39,569	3.4	49,546	3.9	54,708	4.0
7.	Agriculture	24,794	2.1	38,837*	3.0	41,116	3.0
8.	Veterinary Science	5,214	0.5	5,524	0.4	5,624	0.4
9.	Law	29,401	2.6	28,944	2.3	29,571	2.1
10.	Others	2,712	0.2	8,152	0.6	8,384	0.6
	Total	11,55,380	100.0	12,72,666	100.0	13,84,697	100.0

The trends in faculty-wise enrolment over the last 3 years are indicated in the following table:

In 1963-64 there was an increase in the percentage enrolment in science and a decline in arts, commerce and law. Of the total enrolment of 13.84 lakhs, 2.58 lakhs were women. Women students thus constituted 18.7% of the total enrolment as against 17.6% in 1962-63. The following table shows the increase in enorment at the postgraduate and research levels:

	POSTGRADUATE			RE		
Faculty	1961-62	1962-63	1963-64	1961-62	1962-63	1963-64
Arts (including Oriental learning)	40,265	42,136	43,908	2,9 <b>3</b> 4	2,529	2,862
Science	14,511	15,292	17,000	1,876	2,025	2,251
Commerce	6,604	6,460	7,027	160	224	229
Education	1,184	954	1361	129	81	135
Engineering &						
Technology	661	1,423	1,386	46	195	178
Medicine	1,841	2,372	2,267	46	126	68
Veterinary	191	240	274		13	22
Science						
Agriculture	1,411	1,698	2,204	41	59	60
Law	916	687	1,214	17	37	64
Others	26	35	44	—	8	26
Total	67,610	71,297	76,685	5,249	5,297	5,895

\*Revised figures.

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The enrolment for research increased significantly from 5,249 in 1961-62 to 5,895 in 1963-64. There was a welcome increase in research enrolment in science, commerce, engineering and technology, medicine and agriculture.

The total number of teachers (including tutors and demonstrators) in the universities and colleges during 1963-64 was 68,634 as against the total student enrolment of 11,84,697\*. This gives an over-all teacherpupil ratio of 1:17.3. The corresponding ratio for 1962-63 was 1:16.3. The staff strength in the university colleges and teaching departments during 1963-64 was 11,522 for a total student enrolment of 1,71,665. This gives a staff-student ratio of 1:14.9. In the affiliated colleges there were 57,112 teachers for a student enrolment of 10,13,032. The staff-student ratio in the affiliated colleges works out to 1:17.7.

The Commission's views regarding admissions to universities and colleges and the measures necessary to relieve the pressure of numbers were indicated in the report for 1962-63. One solution for increasing numbers appears to be the diverting of students to certificate and diploma courses of a variety of types in relation to the needs of trained manpower for our economy. Some of them who are keen to continue their education may be encouraged to do so at leisure through correspondence courses or evening classes. Proper selection of students for university education and proper guidance to them in the selection of courses would also be desirable.

## STUDENT WELFARE

The conditions in which students have to live and work significantly affect the general academic atmosphere. In the absence of adequate facilities students sometimes feel frustrated and become restive. Satisfactory conditions for work and study are conducive to an improvement in student behaviour. The Commission gives importance and priority to schemes for the provision of necessary amenities to the student community in universities and colleges. With a rapid increase in enrolment the need for student amenities has become greater and more pressing.

## Halls of Residence

The provision of suitable hostel accommodation for students is one of the measures conducive to an improvement in the quality of higher education in the country. A large majority of our students living in their own homes or in rented accommodation have little privacy and the facilities essential for serious studies. The Commission has, therefore, been laying special emphasis on the construction of hostels in universities and colleges and has appointed a committee to examine the problem of residential accommodation for students and teachers.

Of the total enrolment of 11,84,697 in universities and colleges (exclusive of institutions under Board of Intermediate Education), the number

<sup>\*</sup>Exclusive of enrolment in institutions under the Board of Intermediate Education, U.P.

of students residing in hostels was 2,19,263. This showed an increase of 22,805 over the figure for 1962-63 which was 1,96,458. The percentage of resident scholars to the total enrolment in 1962-63 was 18.1. This rose to 18.5 during the year under review. The distribution of students residing in hostels in universities and colleges during 1963-64 is indicated below :

Т	otal enrolment	No. of students residing in hostels	Percentage of resident scholars to total enrolment
University Departments/University Colleges	1,71,665	42,563	24.8
Affiliated Colleges	10,13,032	1,76,700	17.4

Of the 2,19,263 students residing in hostels in 1963-64, 1,86,289 were men and 32,974 women.

The Commission shares 50 per cent of the total approved cost of construction in the case of men's hostels and 75 per cent in the case of women's hostels. During 1963-64 the construction of hostels in 29 universities was approved at an estimated cost of Rs. 2.28 crores, the Commission's share of expenditure being limited to Rs. 1.38 crores. This included approval for women's hostels in 9 universities at an estimated cost of Rs. 33.3 lakhs against which the Commission's share of expenditure amounted to Rs. 25.1 lakhs. The total grant paid to the universities during 1963-64 for the construction of hostels was Rs. 48.99 lakhs.

During the year under review the construction of hostels in 26 colleges was approved. Of these 15 are for men students and 11 for women students. The total estimated cost of these hostels is Rs. 45.47 lakhs of which the Commission's share of expenditure would be Rs. 23.37 lakhs on the usual sharing basis. These hostels would provide accommodation for 1,564 students. The total amount paid to colleges during 1963-64 for the construction of hostels was Rs. 22.64 lakhs. Up to March 1964 the Commission helped in the construction of 216 hostels in colleges with a residential capacity for nearly 15,000 students.

## Non-Resident Students Centres

In order to provide facilities for rest, recreation and private study for day-scholars the Commission has been assisting colleges and universities to establish non-resident students' centres. Up to 31st March 1964 the Commission assisted 21 universities for this purpose. During 1963-64 the proposals of 2 universities were accepted and a grant of Rs. 95,000 sanctioned to them. An amount of Rs. 1.32 lakhs was paid to the universities for the construction of non-resident students' centres during the year. The total number of such centres in colleges so far approved is 103. During 1963-64, the construction of 11 such centres was approved at a total estimated cost of Rs. 5.79 lakhs, the Commission's share of expenditure being limited to Rs. 4.49 lakhs. An amount of Rs. 6.92 lakhs was paid to the colleges during the year under review.

#### Students Homes

Since the provision of hostel accommodation adequate to our needs may not immediately be feasible in view of the limited resources presently available and many students may not be able to meet the expenses of hostel life, the Commission accepted the proposal of setting up students homes in the universities, particularly in big cities. These homes will be expected to function as day hostels and provide library facilities, reading rooms and cafeteria. The Commission's grant for the construction of a students' home will be limited to Rs. 1 lakh against an estimated cost of Rs. 1.25 lakhs. In addition a suitable grant may be provided for library books. The Commission's assistance towards the maintenance of students homes would be determined on the merits of each case.

#### Health Centres

As stated in our report for the year 1962-63 grants are being given to universities for establishing health centres to provide facilities for medical examination and treatment of simple ailments. The Commission has so far approved the establishment of health centres in 32 universities. During 1963-64 grants amounting to Rs. 1.78 lakhs were paid to the universities on this account. A survey conducted by the University Grants Commission revealed that many universities did not have proper facilities for medical treatment. The Commission is of the opinion that it would be desirable to introduce a health service scheme in the universities for their staff and students and has appointed a committee with Dr. A.L. Mudaliar, Vice-Chancellor, Madras University, as chairman to examine the matter and formulate specific proposals in this regard.

#### Students Aid Fund

The Commission contributes to the students aid fund in universities and colleges wherefrom needy students are assisted to pay their tuition or examination fees, purchase books or meet other expenses relating to their studies. The contribution to the students aid fund in a university every year is equal to the total amount subscribed by the students and collected from other sources, if any, subject to a maximum of **Rs.** 10,000 per annum.

Under the revised rules for colleges the Commission's contribution to the students aid fund is being given in the shape of basic and incentive grants. The basic grant is determined on the basis of the number of students enrolled on 1st October of the year preceding the one to which the grant relates as per details given below:

Enrolment		Basic Grant
Upto 500	••	<b>Rs.</b> 500
Between 501 and 750	••	Rs. 750

Between 751 to 1,000		Rs. 1,250
Between 1,001 to 1,250		Rs. 1,500
1,251 and above	••	Rs. 2,000

The incentive grant would be equal to the amount raised by the college concerned for the students aid fund during the previous year subject to a ceiling of Rs. 1,000. The colleges have been allowed to give limited assistance to poor students to meet their hostel or mess expenses as well as the necessary expenditure on medicines and clothing. Interest free loans may also be granted to deserving students from the students aid fund.

During 1962-63, 1,028 colleges and 19 universities received grants under this scheme amounting to Rs. 9.54 lakhs and approximately 53,000 students were benefitted. During the year under review grants amounting to Rs. 13.37 lakhs were paid to the students aid fund in 1,112 colleges and 20 universities.

#### Hobby Workshops

During the year under review the Commission sanctioned the establishment of hobby workshops in 2 universities at an estimated cost of Rs. 1.65 lakhs against which the Commission's share of expenditure would amount to Rs. 1.50 lakhs. During this period a grant of Rs. 32,500 was sanctioned to one college for a hobby workshop to be established at a total estimated cost of Rs. 52,667. Assistance has so far been given for the establishment of 15 workshops in universities and 69 in colleges. During 1963-64 the grants paid on this account amounted to Rs. 1.76 lakhs.

#### Text-Book Libraries

Good textbooks are generally expensive and beyond the means of a large majority of our students. The assistance provided to needy students from the students aid fund is not sufficient to enable them to buy the necessary textbooks. The Commission has therefore decided to sanction grants on a cent per cent basis to selected arts, science and commerce colleges having the prescribed minimum enrolment for establishing textbook libraries and enabling deserving students to obtain textbooks for study on longterm loans. Under this scheme a grant of Rs. 10,000 is given to a college providing undergraduate education and Rs. 15,000 to a college running postgraduate courses for purchasing multiple copies of standard textbooks. The Commission has agreed to assist 400 to 500 colleges for this purpose in the first instance. The Commission has since decided to extend the scheme to all arts, science and commerce colleges under Section 2(f)of the UGC Act which have the prescribed enrolment. Grants were made available to 511 colleges under this scheme by 31-7-1964.

#### SCHOLARSHIPS AND FELLOWSHIPS

The Commission has instituted scholarships and fellowships in order to promote advanced studies and research in various fields of knowledge.

#### Research Scholarships

250 scholarships each of the value of Rs. 200 p.m. are provided every year for promoting advanced study and research in humanities and science subjects. These were hitherto awarded directly by the Commission on the basis of the recommendations of selection committees. It was decided to allocate these scholarships to the universities with effect from the academic year 1963-64 on the basis of the number of research scholars on the rolls, the number of postgraduate teaching departments and the research facilities available in each university. The allocations made might be reviewed after some time and the scholarships reallocated if necessary. The universities distribute the awards among different subjects or disciplines according to their requirements. The scholarships would be awarded by each university on the basis of academic merit to the best available candidates from within or outside the university.

34 universities availed themselves of the scholarships allocated to them and selected 238 scholars in science subjects and the humanities (including social sciences). A sum of Rs. 7.68 lakhs was placed at their disposal for disbursement to their scholars.

#### Fellowships

The Commission has instituted senior and junior research fellowships in science subjects and the humanities (including social sciences) to enable deserving scholars to undertake advanced study and research. The junior research fellowship is of the value of Rs. 300 p.m. and the senior fellowship of Rs. 500 p.m. Each fellowship, junior or senior, carries a grant of Rs. 1000 p.a. for expenditure on contingencies related to the research work undertaken. The Commission decided that a further sum of Rs. 1000 p.a. would be available with each fellowship with effect from the academic session 1964-65 to enable the scholars concerned to publish their research work and meet the necessary expenses on field work undertaken in furtherance of their research projects.

During 1963-64, 25 senior fellowships in the humanities (including social sciences) and 26 in science subjects were awarded by the Commission. Grants amounting to Rs. 2.66 lakhs were paid to the universities for these fellowships.

69 junior research fellowships were awarded in science subjects and 53 in the humanities (including social sciences) during the year. Grants amounting to Rs. 4.97 lakhs were paid to the universities for junior fellowships in the humanities and Rs. 2.74 lakhs for those in science subjects.

As in previous years the Commission awarded 30 research fellowships in engineering and technology during 1963-64, each of the value of Rs. 400 per month. These fellowships also carry a grant of Rs. 1000 per annum each for expenditure on contingencies relating to the research undertaken. The total grants paid to universities during the year for these fellowships was Rs. 1.88 lakhs. With effect from the academic session 1964-65 the research fellows in engineering and technology may be paid a further sum of Rs. 1000 per annum each for the publication of their research work and for meeting the necessary expenditure on field work.

Research scholarships and fellowships of different values are offered by various central agencies. This practice sometimes results in unnecessary movement of scholars between the agencies concerned. The Commission reviewed the situation and suggested that such scholarships and fellowships should normally be operated by one agency and it would be desirable to have the UGC as the co-ordinating agency for the purpose.

#### **OTHER SCHEMES**

Apart from assistance under the schemes mentioned in the foregoing portions of this report, the Commission has been providing grants to colleges and universities for miscellaneous projects and activities. Information about such grants is furnished below.

(a) Publication Grants

Grants are available to universities for the publication of research works including doctoral theses in science subjects and the humanities. (including social sciences). A sum of Rs. 10,000 to Rs. 15,000 is placed at the disposal of each university at the beginning of each year for expenditure on the printing and publication of research works and doctoral theses. The selection of such works and theses has to be made by the universities themselves. During 1963-64 grants amounting to Rs. 1.93 lakhs were paid to the universities on this account.

Approval has so far been given for the publication of about 250 titles and 67 of them have already been printed. The Commission approved a proposal of the Calcutta University for the publication of a Dictionary of Indian History at an estimated cost of Rs. 10,000 and agreed to share 50% of the expenditure. The Madras University sought financial assistance for the publication of a catalogue catalogorum of manuscripts. One valume of this work has been published and the material for the remaining 11 volumes is ready. The Commission agreed to share 2/3rd of the expenditure on publication and the staff required. The total estimated cost of the project is Rs. 1.47 lakhs. The Commission decided to contribute Rs. 15,000 towards the cost of the editorial processing of an edition of Chanakaya, Niti Text proposed to be published by the V.V. Research Institute, Hoshiarpur.

#### (b) Printing Presses

The Commission provides grants to universities for establishing or improving their printing presses. The Commission's share of non-recurring expenditure is limited to 2/3rd of the approved cost subject to a ceiling of Rs. 1.21 lakhs. The recurring expenditure on staff, contingencies etc., for running the press has to be met by the university concerned. During 1963-64, the Commission approved the establishment/ improvement of printing presses at the Poona and Shivaji Universities, Visva-Bharati, Varanaseya Sanskrit Vishvavidyalaya and Gurukul Kangri. A sum for Rs. 5.33 lakhs was paid during the year to the universities on this account.

## (c) Extension Lectures

Grants are provided to universities for organising extension lectures by university and college teachers. The Commission's assistance to a university is limited to Rs. 5,000 per annum. No matching grant is necessary. Extension work has to be conducted by the teachers of the university or colleges affiliated to it and no permanent staff is to be exclusively employed for this work. A total grant of Rs. 82,591 was released to 28 universities for this purpose during 1963-64.

#### (d) Museology

The Commission had earlier agreed to assist the universities of Baroda and Calcutta towards the introduction of a diploma course in muscology. A committee appointed to examine the progress made in this direction recommended closer co-ordination between the diploma course in muscology and related branches of study, and suggested that the aptitude of candidates should be carefully tested to ensure that only suitable students were admitted to the course. On the recommendations of the committee, the Commission sanctioned a non-recurring grant of Rs. 28,000 and a recurring grant of Rs. 47,000 per annum to the Calcutta and Baroda universities. The Commission agreed to utilise the services of an expert in museography to be made available by the UNESCO.

#### (e) Ancient History and Archaeology

Th recommendations of the scrutiny committee appointed to examine the progress made in the development of the study of ancient history and archaeology at the universities of Allahabad, Baroda, Calcutta, Madras, Patna and Poona were referred to in our report for the year 1962-63. The Commission accepted the suggestion of the committee that a topographical list of inscriptions should be prepared as such a list would be of great value and significance for the study of ancient history and archaeology. The work is to be undertaken by the universities of Calcutta, Mysore, Madras and Nagpur. The recurring grants required for the purpose were sanctioned to these universities.

A recurring grant of Rs. 75,000 per annum and a non-recurring grant of Rs. 3.50 lakhs were sanctioned to each of the universities of Allahabad, Baroda, Calcutta, Madras, Patna and Poona for the development of the departments of ancient history and archaeology. Grants amounting to Rs. 9.43 lakhs were paid to these universities on this account during 1963-64.

The Commission decided to hold a seminar on postgraduate teaching and research in history to which prominent historians in the country and some foreign experts were invited. The seminar was held in January 1964 and a report on its deliberations has been published.

#### (f) Linguistics

The Commission has been assisting various universities for the development of courses of study in Linguistics. In 1963-64 the development proposals of the universities of Baroda, Delhi, Gauhati, Kuruksetra and Rajasthan, and of the V.V. Research Institute, Hoshiarpur (Panjab University) were approved and the necessary grants for additional staff and equipment were sanctioned. During the year recurring and non-recurring grants amounting to Rs. 1.13 lakhs were paid to various universities for the development of studies in Linguistics.

#### (g) Preservation of Manuscripts

The scheme relating to the preservation and utilization of manuscripts is being implemented in 11 universities. Assistance is being given for the purchase of microfilm readers and the provision of fumigation chambers. The total amount paid to the universities in 1963-64 on this account was Rs. 58,900.

#### (h) Chairs in Comparative Religion

The Commission generally accepted the recommendations of the Sri Prakasa Committee relating to the institution of Chairs in the field of comparative religion, ethics and moral philosophy. It was decided that the precise designation and subject of specialisation of such posts might be left to the universities and each proposal considered on merits. The Commission agreed to provide assistance to selected universities for this purpose for a period of five years in the first instance. Such Chairs are to be instituted in the universities of Allahabad, Annamalai, Bombay, Calcutta, Kuruksetra, Madras, Magadh, Osmania, Poona, Rajasthan and Visva-Bharati.

#### (i) Sports Coaches

The Commission agreed to provide 50% of the expenditure to the universities during the current Plan period for the appointment of coaches trained by the National Institute of Sports, Patiala. The pay scale of Rs. 250-10-350-EB-15-500 was approved for such coaches. It was decided that not more than three such trained coaches might be appointed by a university in the first instance and this number could later be increased to five if necessary.

#### (j) Shooting Ranges

It was stated in the report for 1962-63 that the universities had expanded their N.C.C. training programme with a view to making it compulsory for all male students. It was decided to construct 1,000 shooting ranges in the universities and colleges throughout the country for firing practice by the N.C.C. cadets. The Commission has so far released grants amounting to Rs. 14.64 lakhs for the construction of 798 shooting ranges. The grant for a shooting range is limited to Rs. 2,400. For the

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construction of a classification range at a university or college where the number of cadets is large, the Commission may provide a sum of Rs. 10,000.

## FOREIGN EXCHANGE

The Commission continued to help universities and colleges with foreign exchange required for importing science equipment, books, journals and other articles required for teaching and research. During 1963-64 foreign exchange of the value of Rs. 20.50 lakhs was made available to the Commission which was distributed to the various universities and their affiliated colleges on a planned basis. Apart from this amount, foreign exchange of the value of Rs. 10 lakhs was made available to the Commission during the year for imports from East European countries on rupee payment basis. Of this, exchange worth Rs. 9.39 lakhs was released to the universities and colleges.

As desired by the Commission the Government of India agreed to authorise the universities to incur foreign exchange expenditure during every licensing period up to Rs. 500 in each individual case for directly importing small items of equipment and the technical literature urgently required by them for research, subject to an overall ceiling for each university. In 1963-64 foreign exchange of the value of Rs. 5 lakhs was provided to the universities for direct utilisation by them through blanket licences in order to meet their urgent requirements in respect of small items of equipment, spare parts, books and journals.

The foreign exchange available to the universities has been very inadequate in relation to their essential needs. The Commission hopes that the situation will improve in the coming years.

#### FOREIGN AID PROGRAMMES

As in previous years assistance to various universities has been available from the UNESCO and some foreign countries. Such assistance is governed by the agreements entered into by the Government of India with the agencies concerned. Foreign aid programmes for the benefit of the universities are being operated in collaboration with the Union Ministries concerned.

#### UNESCO Programme of Technical Assistance

Financial assistance has been provided by the UNESCO under their Expanded Programme of Technical Assistance for the development of centres of advanced study. During 1963-64 the assistance available was earmarked for the following centres:

i)	Applied Mathematics		Calcutta University
ii)	Chemistry of Natural Products		Delhi University
iii)	Theoretical Physics and Astro-Physics		Delhi University
iv)	Plant Physiology, Mycology and		Madras University
	Plant Pathology		
$\mathbf{v}$	Biophysics, Crystallography	••	Madras University

Assistance is also being given under the programme for the development of the department of Geology and Geophysics, Osmania University. The allocations are being used for importing scientific equipment, inviting experts from the U.S.S.R., and for providing training facilities in that country for Indian scientists.

Arrangements have been made to send 8 teachers from the various centres of advanced study to the Soviet Union for further work. During 1962-63 a list of specialised equipment required by the various centres of advanced study, estimated to cost \$3,00,687, was forwarded to the UNESCO. Orders were placed for the purchase of this equipment and some of the items were received by the centres concerned. Other items of equipment are expected to be shipped from the USSR during 1964-65.

#### Assistance for Training Abroad and Visits of Foreign Experts

In collaboration with the Department of Economic Affairs in the Ministry of Finance and the Ministries of Health, Food & Agriculture, the Commission selected Indian personnel for training aborad, invited foreign specialists to Indian universities, and obtained ancillary equipment. During 1963-64 proposals for inviting 16 foreign scientists and for sending 21 Indian scientists for training abroad were accepted under foreign aid programmes. The services of two experts in Radio-Physics and Physical Metallurgy were made available under the Colombo Plan. Some ancillary equipment was also provided. The proposals of the following universities were sponsored by th Commission for obtaining the services of foreign experts in various fields under the Colombo Plan:

- (i) Banaras Hindu University
- a) Solid State Physics including X-ray and electron diffusion and electron microscopy.
- b) Electrical machine design
- c) Biochemistry
- a) Instrumentation and Technical Optics
- b) Biochemistry Geophysics
- a) Radio Chemistry
- b) Electrical Machine Design
  - Instrumentation and Technical Optics

#### Indo-Soviet Cultural Exchange Programme

Three Soviet scientists viz., Prof. A.S. Sadykov, Rector, Tashkent State University, Prof. M.M. Miriniashvili, Vice-Rector, Tbilisi State University and Prof. M.M. Muratov, Moscow Mining Institute visited Indian Universities during 1963-64 for a period of three weeks under this programme. They gave lectures on special topics and discussed problems with our teachers and research workers. Six Indian scientists were selected during the year to visit the Soviet Union under this programme.

(iv) Roorkee University

(iii) Panjab University

(ii) Osmania University

- (v) Saugar University

#### United States P.L. 480 Programme

The Commission collaborates with the Ministry of Food and Agriculture in operating this programme of financing research projects related to agriculture and allied sciences. During the period October 1959 to May 1963, 153 proposals for research were approved and financed under the United States P.L. 480 Programme. Of these 77 projects were received from the science departments of various universities and these were processed by the Commission. Thirty two schemes are under implementation in different university departments and the agreements for grants under the P.L. 480 Programme have been signed. Agreements in respect of the remaining 45 proposals are expected to be finalised soon. During 1963-64 the Commission received 56 proposals from the universities.

During the year a new scheme under the P.L. 480 programme was started in collaboration with the United States Agency for International Development, the National Bureau of Standards, U.S.A. and the Bureau of Commercial Fisheries, Department of Commerce, U.S.A., relating to assistance for research projects in Physical and Biological Sciences. Some research projects under this scheme were approved in 1963-64.

#### Exchange of Scientists between the United Kingdom and India

In the report for the year 1962-63 the Commission had referred to a scheme sponsored in collaboration with the Indian High Commission in the United Kingdom and the British Council for the exchange of scientists between India and Britain. During the year under review one scientist from the United Kingdom visited some Indian universities. One Indian scientists went to the United Kingdom for advanced training in Electron Microscopy.

#### **FUNDS OF THE COMMISSION**

A sum of Rs. 12.86 crores was available to the Commission for plan and non-plan purposes for 1963-64. This included the opening balance of Rs. 99.98 lakhs grants-in-aid received from the Government of India, refund of unspent balance of grants paid in previous years, miscellaneous receipts, deposits and recoveries. The grants received from the Central Government for plan and non-plan projects during 1963-64 amounted to Rs. 11.79 crores. A statement showing the broad outlines of the grants released to the universities, institutions deemed to be universities, and colleges under different heads is given in appendix XII.

#### CONCLUSION

A mid-plan appraisal of the development schemes undertaken by the Commission suggests that the available allocations under the Third Plan would not be commensurate with the basic developmental needs of universities and colleges. An analysis of the expenditure on individual schemes has revealed that by and large the progress has been encouraging. In some cases, the financial targets were exceeded by a considerable margin. While it may be possible to make some adjustments in expenditure in such cases with that on other schemes, progress in respect of which is comparatively slow, it would be difficult to carry out the full development programmes of the Commission within the available Plan provisions. Additional funds would be necessary for the centres of advanced study and the development of postgraduate studies and research in science. The increase in the number of universities, institutions deemed to be universities and colleges, and the rising student enrolment throw an increasingly heavy strain on the present resources of the Commission. In spite of the economy measures adopted by the Commission, the available Plan provisions would not be adequate for the increasing all-round developmental needs of the universities and colleges.

The expansion of postgraduate teaching and research in science subjects and the development of the centres of advanced study have, to some extent, been hampered by the paucity of adequate foreign exchange needed for importing specialised equipment which cannot for the present be procured or fabricated within the country. The exchange made available to the Commission has fallen short of the urgent requirements of the universities and colleges roughly estimated to be of the value of Rs. 1 crore annually. Another difficulty has been the continuing shortage of qualified teachers needed for filling up the senior posts in the universities. Apart from these handicaps which retard expansion, some State Governments have found it difficult to assure the universities and the U.G.C. of the availability of matching grants even for essential developmental projects.

During the year under review grants amounting to Rs. 1.91 crores were earmarked for 26 university departments proposed to be developed as centres of advanced study. Assistance was also secured under foreign aid programmes for these centres, some of which have already started functioning. The programme of seminars, conferences and summer schools for the benefit of teachers sponsored by the Commission has yielded promising results. It has already been decided to expand this programme which is expected to make a significant impact on the standards of teaching and provide the necessary encouragement and stimulus to teachers. Within the limits of available resources, assistance was given to the universities and colleges for providing the essential amenities and incentives to the teaching profession. Special attention was paid to the problem of residential accommodation for students and teachers, and a scheme was approved for the construction of teachers' hostels. A number of other measures, e.g., the establishment of students homes and small textbook libraries were also sanctioned for the benefit of students.

Finally, the Commission would point out that though it is concerned with all sectors of university education, development programmes in the fields of medicine, agriculture, engineering and technology are being largely promoted by the different Central Ministries and State departments concerned, and the U.G.C. makes only limited grants for these purposes to some universities. We take this opportunity to express our gratitude to the universities and colleges for their continued cooperation, and to the many distinguished teachers and educationists who have worked as members on our various committees. We would also like to place on record our appreciation of the assistance and cooperation extended to us by the State Governments, various Ministries of the Government of India and the Planning Commission.

> K.L. Joshi Secretary Oct. 7, 1964.

D.S. Kothari *Chairman* S.R. Das V.T. Dehejia A.C. Joshi P.N. Kirpal H.N. Kunzru P.C. Pavate B. Shiva Rao A.R. Wadia

#### APPENDIX I

#### STATEMENT SHOWING THE GRANTS PAID IN 1963-64 TO UNIVERSITIES AND INSTITUTIONS DEEMED TO BE UNIVERSITIES FOR SCIENCE DEPARTMENTS

(Figures in rupees)

S.No. Name of the University			o. Name of the University		. Name of the University		Equipment	Laboratory Buildings	Library Books	Additional Staff and Maintenance	Centres of Advanced Study	Total
1.	Agra			••			20,000	·		20,000		
2.	Aligarh		••		2,00,000	53,000	50,000	70,481		3,73,481		
3.	Allahabad	••	••	••		4,616	75,000	_	_	79,616		
4.	Andhra				87,333	50,000		59,495		1,96,828		
5.	Annamalai	••			1,15,000	1,77,000	45,000	32,706	58,700	4,28,406		
6.	Banaras	••	••	••	4,67,000	42,251	<u> </u>	24,800		5,34,051		
7.	Baroda	••	••	••	1,90,000	1,36,667	50,000	50,480	<u> </u>	4,27,147		
8.	Bihar	••	••	••	40,000		40,000	_		80,000		
9.	Bombay		••	••		<u> </u>	20,000	16,985	45,715	82,700		
10.	Calcutta		••	••	75,000	<u> </u>	25,000	1,29,095	79,825	3,08,920		
11.	Delhi		••	••	4,89,337	2,05,000		51,379	3,13,537	10,59,253		
12.	Gauhati	••	••	••	1,57,500	2,00,000		57,837		4,15,337		
13.	Gorakhpur	••			1,62,250	_	30,000	20,000		2,12,250		
14.	Gujarat	••	••		1,25,000	1,52,000	40,000	50,000	<del></del>	3,67,000		
15.	Jabalpur	••	••	••	_	1,00,000	30,000	13,000		1,43,000		
16.	Jadavpur		••		80,000	50,000	50,000	20,816		2,00,816		
17.	Jammu & Kash	mir	••		40,000		10,000	19,000	<u> </u>	69,000		
l8.	Jodhpur	••		••	2,25,000	<u> </u>	1,79,880			4,04,880		
19.	Kalyani	••	••	••	2,00,000	1,48,000	55,000	75,000		4,78,000		
20.	Karnatak				1,76,646	3,18,000	30,000	1,29,094	_	6,53,740		
1.	Kerala	••			·	2,00,000	50,000	52,173		3,02,173		
2.	Kuruksetra	••			1,25,000			85,000	<u> </u>	2,10,000		
3.	Lucknow		••	••	1,10,000	1,10,000	45,000	÷	_	2,65,000		
24.	Madras				16,667	 	10,000	47,394	1,88,000	2,62,061		

	GRAND TOTA	L			59,33,631	43,98,173	17,47,213	22,87,783	8,85,777	1,52,52,577
2.	Indian Institute	of Sc	cience, Ban	igalore	10,000		'	414		10,414
1.	Gurukul Kangri				50,000		60,000			1,10,000
	Institutions D	eeme	ed to be U	<b>Iniversitie</b> s						
44.	Visva-Baharati	••	••	••	55,000	1,05,000	40,000	1,00,000		3,00,000
43.	Vikram	•••	••	••	95,000	3,39,000	20,000	64,100		5,18,100
42.	Utkal	••		••		60,000	25,000	20,000	—	1,05,000
41.	Sri Venkateswar	a	••	••	1,70,167		40,000	35,000		2,45,167
40.	S.N.D.T.	• •				<i>—</i>	~ -	50,780		50,780
39.	Shivaji	• •		••	50,000		25,000			75,000
38.	Saugar		••		1,65,000	28,000	30,000	58,055	40,000	3,21,055
37.	S.V. Vidyapeeth				50,000	2,51,313	30,000	42,710		3,74,023
36.	Roorkee			••	45,000	1,20,000	60,000	1,07,500		3,32,500
35.	Ranchi			••	1,85,000			8,000		1,93,000
34.	Rajasthan	• •	••	••	4,00,000	50,000	1,25,000	1,29,523		7,04,523
33.	Poona				1,90,000	8,540	25,000	1,20,613	<u> </u>	3,44,153
32.	Patna				1,81,667	88,319	70,000	8,130		3,48,116
31.	Panjabi				50,000		75,000	24,640		1,49,640
30.	Panjab				2,80,000	7,25,000	50,000	3,09,195	1,60,000	15,24,195
29.	Osmania				2,55,064	1,96,467	82,333	9,482		5,43,346
28.	North Bengal				2,25,000		50,000			2,75,000
27.	Nagpur					25,000	20,000	24,106		69,106
26.	Mysore				1,55,000	2,50,000	30,000	95,800		5,30,800
25.	Marathwada				2,40,000	2,05,000	35,000	75,000		5,55,000

#### APPENDIX II

## STATEMENT SHOWING THE GRANTS PAID IN 1963-64 TO UNIVERSITIES AND INSTITUTIONS DEEMED TO BE UNIVERSITIES FOR DEPARTMENTS IN HUMANITIES AND SOCIAL SCIENCES

S.No.		Name of	the Univ	versity		Teaching & Research Departments	Library Books	Centres of Advanced Study	Total
								<u> </u>	(in rupees)
1.	Agra					62,246	35,000		97,246
2.	Aligarh					6,33,475	40,000		6,73,475
3.	Allahabad						40,000		40,000
4.	Andhra					38,000			38,000
5.	Annamalai					98,620	40,000	40,000	1,78,620
6.	Banaras					4,91,910			4,91,910
7.	Baroda					1,71,983	14,670	—	1,86,653
8.	Bihar			••		1,000	45,000	-	46,000
9.	Bombay					72,400	20,000	25,000	1,17,400
10.	Burdwan				••	2,95,000	50,000		3,45,000
11.	Calcutta					2,32,023	25,000	5,000	2,62,023
12.	Delhi					2,61,869	64,000	36,680	3,62,549
13.	Gorakhpur					1,17,900	50,000	—	1,67,900
14.	Gujarat			••		20,000	20,000		40,000
15.	Jabalpur					2,47,000	47,200		2,94,200
16.	Jadavpur					5,08,000	33,000		5,41,000
17.	Jamia Millia	Islamia				10,000	30,000	_	40,000
18.	Jammu & Ka			••	••	65,000		_	65,000
19.	Jodhpur				••	5,000	90,000	—	95,000
20.	Kalyani						20,000		20,000
21.	Karnatak					1,53,000	40,000		1,93,000
22.	Kerala					20,000			20,000
23.	Kuruksetra					3,12,500			3,12,500
24.	Lucknow					84,501	75,000		1,59,501

25.	Madras	• •		••		3,63,716		—	3,63,716
26.	Magadh					21,000	30,000	-	51,000
27.	Marathwada					62,000	25,000		87,000
28.	Mysore					2,37,000	44,000	_	2,81,000
29.	Nagpur	••				50,000		_	50,000
30.	North Bengal			••			50,000		50,000
31.	Osmania				••	45,200	1,28,000		1,73,200
32.	Panjab	••	••		••	14,09,524	1,25,400	·	15,34,924
33.	Panjabi	••	••	••	••	29,000	30,000	_	59,000
34.	Patna	••	••	••	••	4,08,569	50,000		4,58,569
35.	Poona	••	••	••	••	3,48,939	38,700	73,500	4,61,139
36.	Rabindra Bhara	 	••	••	••		11,000		11,000
37.	Rajasthan		••	••	••	62,200	80,000	_	1,42,200
38.	S.V. Vidyapeeth	••	••	••	••	40,714	50,000	_	90,714
39.	Saugar		••	••	••	43,400	15,000	—	58,400
40.	S.N.D.T.	••	••	••		3,00,413	35,000		3,35,413
41.	Shri Venkateswa						9,100		9,100
42.	Utkal	11 a			••	_	40,000		40,000
43.	Varanaseya San	•• ekrit J					20,000	_	20,000
44.	Vikram		, isvavidya		••	66,000	60,000	_	1,26,000
45.	Visva-Bharati		••	••	••	2,60,270	80,000	<u> </u>	3,40,270
ч.	v isva-Dilarati	••	••	••	••	2,00,270	00,000		•,••,=•=
	Institutions D	eeme	d to be U	niversiti	es				
1.	Gurukul Kangri					16,000	50,000	—	66,000
2.	Indian School of		national S	tudies	••	3,500	<u> </u>	-	3,500
	GRAND TOTAL				••	76,68,872	17,50,070	1,80,180	95,99,122

#### APPENDIX III

#### STATEMENT SHOWING THE GRANTS PAID DURING 1963-64 TO THE UNIVERSITIES FOR THE CONSTRUCTION OF HOSTELS, LIBRARY BUILDINGS AND STAFF QUARTERS

(Figures in rupees)

S.No	. Name of the	e Univ	ersity			Hostels	Library Buildings	Staff Quarters	Total
1.	Agra					9,000			9,000
2.	Aligarh					3,66,849	75,000	60,000	5,01,849
3.	Allababad	••				30,000	2,00,000	25,000	2,55,000
4.	Andhra	••						1,00,000	1,00,000
5.	Annamalai					2,66,772		1,00,000	3,66,772
6.	Banaras					7,36,500	1,00,000	3,82,050	12,18,550
7.	Baroda					50,000		2,64,373	3,14,373
8.	Bihar	••				50,000		·	50,000
9.	Burdwan	••		••		48,393		60,000	1,08,393
10.	Calcutta			••		1,28,000	1,70,000	<u> </u>	2,98,000
11.	Delhi	••					· <u> </u>	85,000	85,000
12.	Gauhati					85,000	_	1,00,000	1,85,000
13.	Gorakhpur				••		1,41,500		1,41,500
14.	Gujarat					2,90,000		10,000	3,00,000
15.	Jabalpur		• •		••		50,000		50,000
16.	Jadavpur				••	4,000	30,000	21,361	55,361
17.	Jammu and Kash	nmir				5,000			5,000
18.	Karnatak		••			70,000	10,000	1,55,000	2,35,000
19.	Kerala					2,30,000			2,30,000
20.	Kuruksetra					1,50,000	*	1,30,000	2,80,000
21.	Lucknow					1,25,000	10,000	40,000	1,75,000
22.	Marathwada	••					1,20,000		1,20,000
23.	Mysore					2,65,000	3,21,000	50,000	6,36,000
24.	Nagpur					1,20,000	5,000		1,25,000

25.	Osmania					63,500	29,000	50,000	1,42,500
23. 26.	-	••	••	••	••	2,73,099	13,500		2,86,599
	Panjab Patna	••	••	••	••	30,000	97,000		1,27,000
27.		••	••	••	••	1,00,000			1,00,000
28.	Poona	••	••	••	••		*		60,000
29.	Punjabi	••	••	••	••	60,000		60,000	83,954
30.	Rajasthan	• •	• •	• •	••	8,954	15,000	00,000	
31.	Roorkee				••	1,00,000	45,000		1,45,000
32.	S.V. Vidyape	eth				1,90,000	1,48,500	1,10,000	4,48,500
33.	Saugar					40,000	<u> </u>	25,000	65,000
34.	S.N.D.T. Wo					1,89,922		10,000	1,99,922
35.	Sri Venkatesv							1,21,400	1,21,400
36.	Utkal			••		1,64,000	90,000	75,000	3,29,000
37.	Varnaseya Sa					50,000	30,000		80,000
38.	Vikram			••		1,00,000	46,000		1,46,000
39.	Visva-Bharati		••			3,00,000		4,70,000	7,70,000
	Institutions ]	Deemed	to be Ur	niversiti	es				
40.	40. Indian Institute of Science, Bangalore			••		4,71,000	-	4,71,000	
TOTAL						46,98,989	22,17,500	25,04,184	94,20,673

## APPENDIX IV

## STATEMENT SHOWING GRANTS PAID\* FOR THE DEVELOP-MENT OF ENGINEERING & TECHNOLOGICAL EDUCATION DURING 1963-64

<b>S</b> .No.	Name of the University		Amount Rs.
1.	Aligarh Muslim	• •	19,65,241
2.	Andhra	••	3,56,616
3.	Annamalai	• •	6,41,877
4.	Banaras Hindu	••	15,40,116
5.	Bombay	••	3,79,267
6.	Calcutta		3,39,391
7.	Delhi		89,908
8.	Jadavpur	••	14,50,700
9.	Jodhpur	• •	2,42,000
10.	Kerala	• •	25,000
11.	M.S. University of Baroda		1,36,787
12.	Madras	••	1,30,366**
13.	Mysore		3,54,634
14.	Nagpur	••	1,28,450
15.	Osmania	• •	4,19,995
16.	Panjab	••	2,30,928
17.	Patna		2,79,467
18.	Panjabi	••	3,107
19.	Roorkee	••	10,24,508
20.	Saugar	••	70,900
21.	Sri Venkateswara	• •	9,18,407
22.	Utkal	••	63,347
	Institution deemed to be Universities		
1.	Indian Institute of Science, Bangalore		5,98,619
	TOTAL		1,13,89,631

<sup>\*</sup>Inclusive of payments made for the revision of salary scales, construction of hostels, award of fellowships, and provision of student amenities.

<sup>\*\*</sup>Includes an amount of Rs. 2,600 paid to P.S.G. College of Technology, Coimbatore .

#### APPENDIX V

## STATEMENT SHOWING THE DETAILS OF THE POSTGRADUATE COURSES OF TWO YEARS' DURATION IN ENGINEERING AND TECHNOLOGY AT VARIOUS UNIVERSITIES

Name of the	Postgraduate Courses	Total intake
University		
Andhra	i. Chemical Engineering	
	ii. Civil Engineering	
	(Structures and Hydraulics, Public Health	
	Engineering)	50
	iii. Electrical Engineering	
	Electric Machines, Power Systems	
	iv. Mechanical Engineering	
	Thermodynamics and Heat engines or	
	Machine Design	
Banaras	i. Chemical Engineering and Chemical Technology	
	ii. Civil Engineering	
	Hydraulics	
	Soil Mechanics	
	Structures	
	iii. Mechanical Engineering	60
	Machine Design	
	iv. Electrical Engineerig	
	Power Systems	
	Applied Electronics	
	v. Metallurgy	
	Process Metallurgy	
	Physical Metallurgy	
Bombay	i. Chemical Engineering	
	and various branches of Chemical	100 to 150
	Technolology and Research	
Calcutta	Department of Applied Chemistry and Applied	
	Physics II I I I I I I I I I I I I I I I I I	
	i. Chemical Technology	30
	ii. Applied Physics	
	Department of Radio-Physics & Electronics	
	i. Electronics	
	ii. Solid State Electronics	50
	iii. Control systems and Digital Techniques	
Jadavpur	i. Civil Engineering	
J	ii. Mechanical Engineering	100
	iii. Electrical	-
	iv. Telecommunication Engineering	
	v. Chemical Engineering	
	0 0	

Madras	i. Chemical Engineering & Chemical Technology	25
	ii. Textile Technology	40
	iii. Leather Technology	
M.S. Uni-	Civil	
versity of		
Baroda		
	i. Highways and Bridges	
	ii. Soil Mechanics and Foundation Engineering	50
	iii. Hydraulics structures	
	iv. Public Health Engineering	
	Mechanical	
	Internal Combustion Engineering	
	Electrical	
	Servo-mechanism and Automatic	
	Control Devices	
Osmania	i. Civil Engineering	
0.000000	ii. Mechanical Engineering	50
	iii. Electrical Engineering	
	iv. Tele-Communication Engineering	
	v. Chemical Engineering	
	vi. Chemical Technology	
Panjab	Chemical Engineering and Pharmacy	
5	i. Mass and Energy Transfer	20
	ii. Chemical Plant Processes	
Roorkee	(a) Civil	
	i. Structural Engineering	
	ii. Hydraulics Engineering	
	iii. Soil Mechanics and Foundation	
	Engineering	
	iv. Public Health Engineering	
	v. Highway Engineering	150
	vi. Advanced Survey & Photogrammetry	
	vii. Earthquake Engineering	
	(b) Mechanical	
	i. Applied Thermodynamics	
	ii. Machine Design	
	iii. Production Engineering	
	(c) Electrical	
	i. Advanced Electrical Mechines	
	ii. Power system Engincering	
	iii. Advanced Electronics	
	iv. Applied Electronics and	
	Servo-Mechanisms	

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#### APPENDIX VI

#### STATEMENT SHOWING THE GRANTS ALLOCATED TO THE CENTRES OF ADVANCED STUDY FOR THE THIRD PLAN-PERIOD

Sub	ject	Department/University	Total Grants Allocated (in rupees)
Ast	ronomy		
1.	Experimental Astronomy	Department of Astronomy and Nizamia Observatory, Osmania University	7,62,000
Bota	any		
2.	Plant Morphology and Embryology	Department of Botany, Delhi University	9,64,000
3.	Plant Pathology and Mycology	Department of Botany, Madras University	9,06,000
Che	mistry		
4.	and Dyes	Department of Chemical Technology, Bombay University	8,60,000
	Chemistry of Natural Products	Department of Chemistry, Delhi Uni- versity	9,22,000
•	sics		
6. -	Astrophysics	Department of Physics and Astrophysics, Delhi University	9,55,000
7.	Radio Physics and Electronics	Institute of Radiophysics and Electro- nics, Calcutta University	11,77,000
	Crystallography and Biophy- sics	Department of Physics, Madras University	9,82,000
	logy		
9.	ontology	Department of Geology, Panjab Un versity	8,97,000
10.	Structural Geology, Geomor- phology, Petrology and Mineralogy	Department of Geology, Univers of Saugar	9,51,000
Mat	hematics		
11.	Pure Mathematics	Department of Mathematics Bombay University (in collaboration with the Tata Institute of Fundamental Research, Bombay)	4,03,000
12.	Applied Mathematics	Department of Applied Mathematics, Calcutta University, and Mathematics	
13.	Pure Mathematics	Department, Jadavpur University Department of Mathematics, Panjab	10,02,000
7	la	University	6,09,000
<b>200</b> 14.	<b>logy</b> Cell Biology and Endocrino- logy	Department of Zoology, Delhi Univer-	9,58,000
15.	Marine Biology	Department of Marine Biology, Porto Novo, Annamalai University	8,46,000
		TOTAL	1,31,94,000

(1) SCIENCE

## (II) HUMANITIES AND SOCIAL SCIENCES

Econo	mics

Ι.	Public Finance and Industrial Economics	Department of Economics, Bombay Uni- versity	5,05,000
2.	Economics of Development	Department of Economics, Delhi Uni-	3,03,000
	and Economic History	versity	2,75,000
3.	Agricultural Economics	Gokhale Institute of Politics and Eco- nomics, Poona University	6,44,000
Edu	cation		
4.	Educational Research	Department of Education, M.S. University of Baroda	7,88,000
His	tory		
5.	Ancient Indian History and Culture	Department of Ancient Indian History and Culture, Calcutta University	5,39,000
Lin	guistics		
6.	Applied Linguistics	Deccan College Postgraduate and Rese- arch Institute, Poona University	8,84,000
7.	Dravidian Linguistics	Department of Linguistics, Annamalai University	4,67,000
Phi	losophy		
8.	Philosophy (Indian)	Department of Philosophy, Banaras Hindu University, Varanasi	5,94,000
9.	Advaita and Allied Systems of Philosophy	Department of Philosophy, Madras Uni- University	3,93,000
10.	Metaphysics	Department of Philosophy, Visva- Bharati	3,10,000
San	skrit		
11.		Department of Sanskrit, Poona Univer-	
		sity	5 <b>,47,00</b> 0
		— Тотаг	59,46,000

#### APPENDIX VII

## STATEMENT SHOWING THE BLOCK (MAINTENANCE) GRANTS PAID TO THE CENTRAL UNIVERSITIES AND INSTITUTIONS DEEMED TO BE UNIVERSITIES DURING THE YEAR 1963-64

(Rs.) 1. Aligarh Muslim University 71,65,00	0
2. Banaras Hindu University 91,00,00	
3. Delhi University 52,35,00	
4. Non-Government Colleges of Delhi University 76,39,74	
5. Visva-Bharati 25,00,00	0
Institutions Deemed to be Universities	
Indian Institute of Science, Bangalore 60,50,00	0
Indian School of International Studies, New Delhi 4,50,08	6
TOTAL 3,81,39,83	1

## APPENDIX VIII

S.No	o. Scheme	Amount
		(in rupees)
1.	Construction of Hostels	22,63,941
2.	Improvement of Library & Laboratory Facilities	19,89,690
3.	Construction of Staff Quarters	76,600
4.	Development of Postgraduate Courses in Science Subjects	21,70,621
5.	Development of Postgraduate Courses in Humanities and	
	Social Sciences	2,87,900
6.	Grants to Colleges of Delhi University for specific	
	purposes	6,50,850
7.	Centenary Grants to Colleges	1,91,000
8.	Students' Aid Fund	12,12,962
9.	Hobby Workshop	1,27,495
10.	Non-Resident Students Centres	6,91,694
11.	Text Book Libraries	1,57,500
12.	Water Coolers	45,200
	TOTAL	98,65,453

## **DEVELOPMENT GRANTS PAID TO COLLEGES**

#### APPENDIX IX

#### STATEMENT SHOWING THE GRANTS PAID TO AFFILIATED COLLEGES FOR THE DEVELOPMENT OF POSTGRADUATE STUDIES IN SCIENCE AND HUMANITIES DURING 1963-64

S. N	Io. Name of the College	Science	Humanities	Tota
1.	Agra College, Agra	1,50,000	20,000	1,70,00
2.	American College, Madurai	60,000		60,000
3.	Balwant Rajput College, Agra	1,15,133		1,15,133
4.	Barahseni College, Aligarh	10,000	20,000	30,000
5.	Birla College, Pilani	1,50,000		1,50,000
6.	Central College, Bangalore.	1,30,000		1,30,000
7.	College of Science, Nagpur	65,000		65,000
8.	College of Science, Raipur	42,000		42,000
9.	C.M. College, Darbhanga	,	20,000	20,000
0.	C.M.S. College, Kottayam	20,000	50,000	70,000
1.	D.A.V. College, Dehradun	1,00,000		1,00,000
2.	D.A.V. College, Jullundur	10,000		10,00
3.	D.A.V. College, Kanpur	70,000		70,00
4.	D.A.V. College, Muzaffarnagar	1,50,000		1,50,00
5.	Delhi School of Social Work, Delhi	· · ·	1,500	1,50
6.	D. & H. National & W.A. Science College,			
	Bombay	1,500		1,500
7.	Digambar Jain College, Baraut	20,000	_	20,000
8.	Farooke College, Feroke (Calicut)	20,000		20,000
9.	Fatima Mata National College, Quilon	20,000		20,00
0.	Fergusson College, Poona	6,666	_	6,66
1.	Government College, Ajmer	75,000		75,00
2.	Government Science College, Jabalpur	1,00,000	—	1,00,00
23.	Government College, Kota	25,000		25,000
4.	Holkar Science College, Indore	75,000		75,000
5.	Institute of Science, Bombay	75,000		75,000
26.	Jat Vedic College, Baraut	15,000	_	15,000
7.	Loyola College, Madras	_	20,000	20,000
8.	Madura College, Madurai	35,890		35,890
9.	Maharana Bhopal College, Udaipur	20,000	_	20,000
0.	Mar Ivanios College, Trivandrum	25,000		25,000
31.	Meerut College, Meerut	19,370	<u></u>	19,370
2.	Multani Mal Modi Degree College, Modi-			
	nagar	15,000		15,000
3.	National College, Tiruchirapalli	8,000	9,400	17,400
<b>54</b> .	Sacred Heart College, Thevara	10,000	20,000	30,000
5.	The S.B. Garda College & B.P. Baria			
	Science Institute, Navsari	14,314	2,000	16,314
6.	Seetha Lakshmi Ramaswamy College, Tiru-			
	chirapalli	10,000		10,000
37.	Smt. V.H. D. Central Institute of Home			
	Science, Bangalore	35,000		35,000
8.	Sree Narayana College, Quilon	25,000	10,000	35,000
39.	Sri Avinashilingam Home Science College,			
	Coimbatore	10,000	<u> </u>	10,000

S.N	o. Name of the College	Science	Humanities	'Fotal
40.	Stella Maris College, Madras		50,000	50,000
41.	St. Berchman's College, Changanacherry	20,000		20,000
42.	St. John's College, Agra	·	5,000	5,000
43.	St. Joseph's College, Devagiri, Calicut	10,000		10,000
44.	St. Joseph's College, Tiruchirapalli	92,097		92097
45.	St. Terasa's College, Ernakulam	35,000		35,000
46.	St. Thomas College, Trichur	60,000		60,000
47.	St. Xavier's College, Bombay	19,250		19,250
48.	Sydenham College of Commerce & Econo	-		
	mics, Bombay		10,000	10,000
49.	Thakur, D.S.B. Government College,			
	Nainital	1,25,000		1,25,000
50.	Thiagarajai College, Madurai		50,000	50,000
51.	Union Christian College, Alwaye	12,000		12,000
52.	Vivekananda College, Mylapore	51,400		51,400
53.	V.S. Patel College of Arts and Science,			
	Bilimore	1,000		1,000
54.	V.S.S.D. College, Kanpur	12,000		12,000
	Torai.	21,70,620	2,87,900	24,58,520

APPENDIX IX (Contd.)

#### APPENDIX X

S.No	o. University	Non-Recurr	ing Recurring	Total
		(Rs.)	(Rs.)	(Rs.)
1.	Andhra	3,94,049	5,07,216	9,01,265
2.	Bhagalpur	1,80,213	3,55,123	5,35,336
3.	Bihar	6,44,322	3,48,826	9,93,148
4.	Burdwan	1,67,058	72,256	2,39,314
5.	Calcutta	5,19,781	7,45,125	12,64,906
6.	Gauhati	7,45,463	20,000	7,65,463
7.	Gujarat	6,20,000	1,00,000	7,20,000
8.	Jabalpur	1,47,748	69,433	2,17,181
9.	Karnatak	15,609	82,761	98,370
10.	Kerala	5,64,797	9,90,955	15,55,752
11.	Madras	8,25,710	42,617	8,68,327
12.	Magadh	3,88,018	2,57,198	6,45,216
13.	Marathwada	47,070	41,815	88,885
14.	Mysore	2,59,539	2,62,594	5,22,133
15.	Nagpur	32,730	3,14,678	3,97,408
16.	North Bengal	1,01,508	1,31,004	2,32,512
17.	Osmania	3,511		3,511
18.	Panjab	10,84,285	12,23,414	23,07,699
19.	Panjabi (Patiala)	81,348	48,494	1,29,842
20.	Patna		- 1,80,420	1,80,420
21.	Poona		- 4,00,000	4,00,000
22.	Rajasthan	80,611	1,83,313	2,63,924
23.	Ranchi	3,09,416		3,09,416
24.	S.V. Vidyapeeth	- 1000	- 80,954	80,954
25.	S.N.D. T. Women's	1,01,391	1,30,549	2,31,940
26.	Sri Venkateswara	41,849	9 2,01,110	2,42,959
27.	Utkal	4,244	4 30,786	35,030
28.	Vikram	62,781	1,12,472	1,75,253
	Т	отат. 74,73,051	69,33,113	1,44,06,164

#### STATEMENT SHOWING THE GRANTS PAID DURING 1963-64 FOR THE IMPLEMENTATION OF THE THREE YEAR DEGREE COURSE SCHEME IN UNIVERSITIES AND AFFILIATED COLLEGES

#### APPENDIX XI

S.No.	Name of the University	Technical Teachers	University Teachers	College Teachers	Total
					(in rupees
1.	Agra		18,000	320	18,320
	Aligarh	75,000			75,000
3.	Allahabad	·	60,000	<u> </u>	60,000
4.	Andhra	1,00,000	·	8,04,041	9,040,4
5.	Annamalai	1,57,168	1,444		1,58,612
	Banaras	1,75,000	·	—	1,75,000
7. 1	Baroda	40,000			40,000
	Bhagalpur	·	3,727	—	3,72
	Bombay	28,000	25,000	68,355	1,21,35
	Burdwan	, <u> </u>	68,863	1,093	69,956
11. (	Calcutta		75,000		75,000
	Gauhati		· · · ·	35,500	35,500
	Gorakhpur		1,10,000		1,10,00
	Gujarat			40,504	40,50
	Jabalpur		7,001	16,000	23,00
	Jadavpur		85,000		85,00
	Jodhpur		85,000		85,00
	Karnatak		75,204	2,29,795	3,04,99
	Kerala	_	25,957	12,72,824	12,98,78
	Kuruksetra		92,000		92,00
	Lucknow	_	1,17,000		1,17,00
	Madras		2,10,000	4,22,936	6,32,93
	Marathwada		6,000	34,000	40,00
	Mysore	50,000	,	2,464	52,46
	Nagpur	22,000	75,000	1,01,781	1,98,78
	Osmania	1,45,185	, <u> </u>	2,02,934	3,48,11
	Panjab		1,29,030	26,190	1,55,220
	Patna	28,467		, <u> </u>	28,46
	Poona		1,63,861	31,031	1,94,892
	Rajasthan	_	60,000	1,180	61,180
	Roorkee		34,000		34,000
	S.V. Vidyapeeth		216	784	1,000
	Saugar		85,000		85,000
	S.N.D.T. Women's		23,485	6,553	30,038
	Shivaji			7,318	7,318
	Sri Venkateswara	40,000		3,19,460	3,59,460
	Varanaseya Sanskrit Visvavi-	10,000		0,10,100	
(	dyalaya	·····	21,512		21,512
	GRAND TOTAL	8,60,820	16,57,300	36,25,063	61,43,183

#### STATEMENT SHOWING THE GRANTS PAID TO THE UNIVERSITIES TOWARDS THE REVISION OF SALARY SCALES OF COLLEGE AND UNIVERSITY TEACHERS FOR THE YEAR 1963-64

## APPENDIX XII

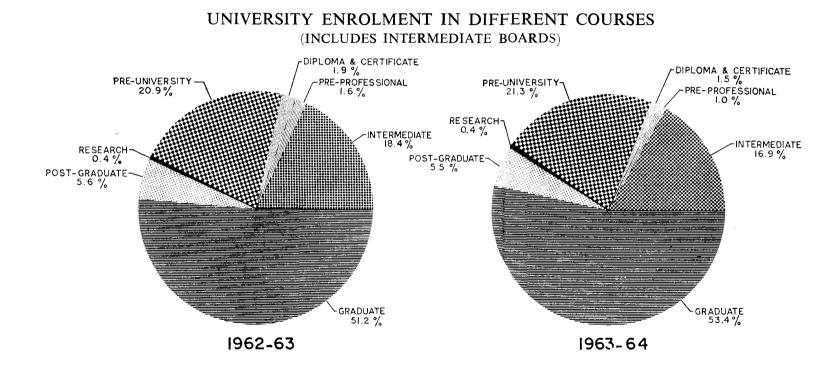
## STATEMENT OF EXPENDITURE UNDER PLAN AND NON-PLAN PROJECTS DURING THE YEAR 1963-64

## **NON-PLAN PROJECTS**

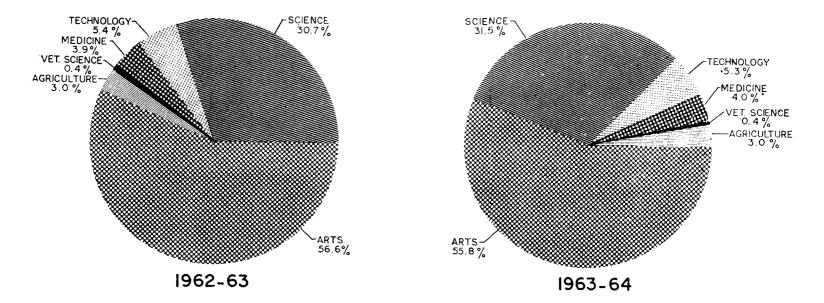
		(in Rupees)
1.	Administration Charges	14,85,553
2.	Block Grant to Central Universities	2,40,00,000
3.	Block Grant to Institutions deemed to be Universities	65,00,086
4.	Maintenance Grants to Constituent/Affiliated Colleges	of
	Delhi University.	76,39,745
5.	Grant to Central Universities for Schemes not covere	d
	under Block Grants.	1,94,169
	Total	3,98,19,553

## PLAN PROJECTS

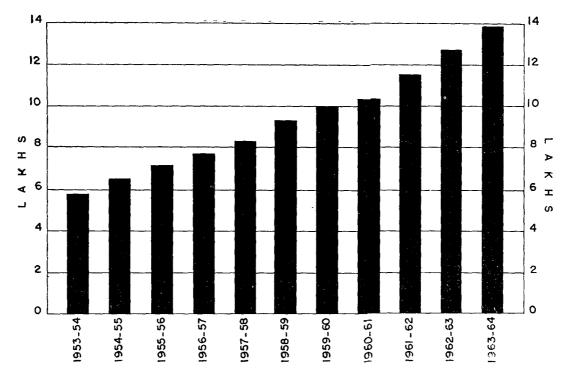
1.	Grants to Central & State Universities for Humanities	95,99,122			
2.	Grants to Central & State Universities for Higher Scientific				
	Education & Research	1,52,52,577			
3.	Grants to Central & State Universities for Engineering &	C.			
	Technology	1,13,89,631			
4.	Grants to Constituent & Affiliated Colleges	98,65,453			
5.	Grants to Central & State Universities for Miscellaneous				
	Schemes	3,97,48,942			
6.	Miscellaneous expenditure incurred on conferences etc.	1,75,008			
	TOTAL	8,60,30,733			
	Grand Total (PLAN & NON-PLAN)	12,58,50,286			



# UNIVERSITY ENROLMENT FACULTY-WISE (INCLUDES INTERMEDIATE BOARD)

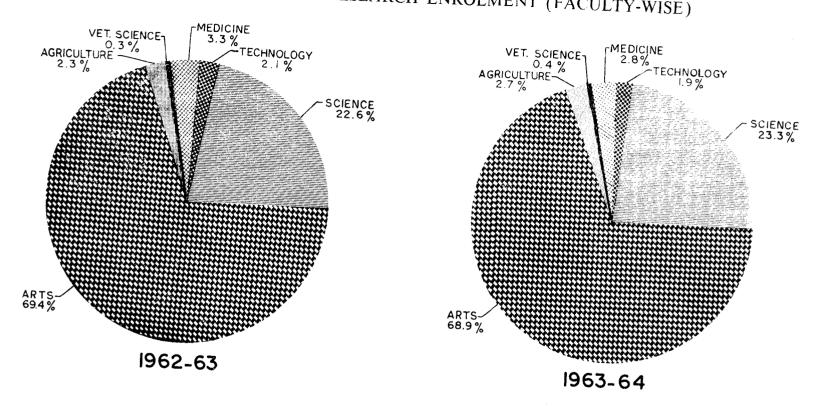


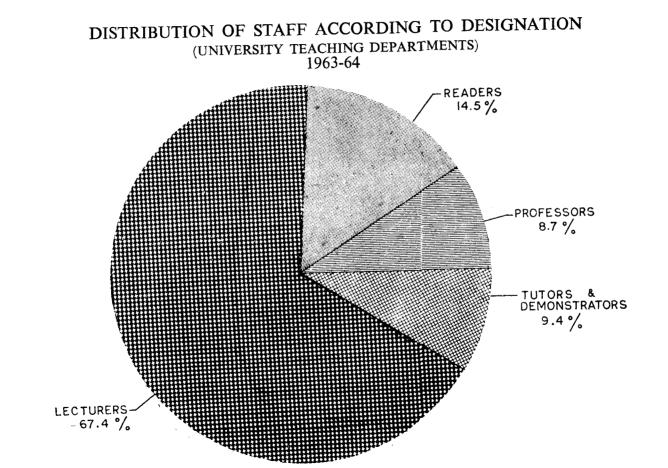
UNIVERSITY ENROLMENT (INCLUDES INTERMEDIATE BOARDS) 1953-54 to 1963-64



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# POSTGRADUATE & RESEARCH ENROLMENT (FACULTY-WISE)





HALLS OF RESIDENCE 1962-63 & 1963-64

