



**PARLIAMENT OF INDIA
RAJYA SABHA**

**DEPARTMENT-RELATED PARLIAMENTARY STANDING COMMITTEE
ON HUMAN RESOURCE DEVELOPMENT**

THREE HUNDRED AND THIRTEENTH REPORT

**Demands for Grants 2020-21 (Demand No. 59) of the
Department of Higher Education**

*(Presented to the Rajya Sabha on 5th March, 2020)
(Laid on the Table of Lok Sabha on 5th March, 2020)*



**Rajya Sabha Secretariat, New Delhi
March, 2020 / Phalguna, 1941 (Saka)**

Hindi version of this publication is also available

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सत्यमेव जयते

**Rajya Sabha Secretariat, New Delhi
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COMPOSITION OF THE COMMITTEE
(Constituted w.e.f. 13th September, 2019)

1. Dr. Satyanarayan Jatiya — *Chairman*

RAJYA SABHA

2. Prof. M.V. Rajeev Gowda
3. Shri Ranvijay Singh Judev
4. Shri Vishambhar Prasad Nishad
5. Shri Derek O' Brien
6. Dr. Sasmit Patra
7. Dr. Sasikala Pushpa Ramaswamy
8. Dr. Vinay P. Sahasrabuddhe
9. Shri Gopal Narayan Singh
10. Shri Akhilesh Prasad Singh

LOK SABHA

11. Shri Rajendra Agrawal
12. Dr. Dhal Singh Bisen
13. Shri Santokh Singh Chaudhary
14. Shri Lavu Sri Krishna Devarayalu
15. Shri Sangamlal Kadedin Gupta
16. Shri S. Jagathrakshakan
17. Shri Sadashiv Kisan Lokhande
18. Dr. Jaisiddeshwar Shivacharya Mahaswamiji
19. Shri Asit Kumar Mal
20. Ms Chandrani Murmu
21. Shri Balak Nath
22. Dr. T. R. Paarivendhar
23. Shri Chandeshwar Prasad
24. Shri T. N. Prathapan
25. Shri Ratansinh Magansinh Rathod
26. Shri Jagannath Sarkar
27. Dr. Arvind Kumar Sharma
28. Shri Vishnu Dutt Sharma
29. Shri Dharambir Singh
30. Shri S. Venkatesan
31. Shri Ashok Kumar Yadav

SECRETARIAT

Dr. Shikha Darbari, Joint Secretary and Financial Advisor

Shri Rajiva Srivastava, Director

Shri Sammer Kapoor, Deputy Secretary

Smt. Himanshi Arya, Deputy Secretary

Shri K. Sudhir Kumar, Deputy Director

Shri Mohit Misra, Committee Officer

Smt. Suman Khurana, Committee Officer

INTRODUCTION

I, the Chairman of the Department-related Parliamentary Standing Committee on Human Resource Development, having been authorised by the Committee to present the Report on its behalf, do hereby present this Three Hundred and thirteenth Report of the Committee on the Demands for Grants (Demand No. 59) of the Department of Higher Education for the year 2020-21.

2. The Committee considered the various documents and relevant papers received from the Department of Higher Education and also heard the Secretary and other Officials of the Department on the said Demands for Grants in its meeting held on 12th February, 2020. Besides, the Committee, while making its observations/recommendations, has also relied upon the following:-

- (i) Detailed Demands for Grants of the Department of Higher Education for the year 2020-21;
- (ii) Detailed Explanatory Notes on the Demands for Grants (2020-21) received from the Ministry and the agencies/attached offices of the Department of Higher Education;
- (iii) Annual Report of the ministry for the year 2018-19 and the latest available Annual Reports of the agencies/attached offices of the Department of Higher Education;
- (iv) Written replies furnished by the Department of Higher Education to the Questionnaires sent to it by the Secretariat; and
- (v) Written clarifications to the points/issues raised by Members in the meetings of the Committee.

3. The Committee wishes to express its thanks to the Secretary and officers of Department of Higher Education for appearing before the Committee and furnishing the requisite information in connection with the examination of Demands for Grants of the Department.

4. For the facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in the body of the Report.

5. The Committee considered the Draft Report and adopted the same in its meeting held on the 4th March, 2020

NEW DELHI
4th March, 2020
Phalguna 14, 1941 (Saka)

DR. SATYANARAYAN JATIYA
Chairman
Department-related Parliamentary
Standing Committee on Human Resource
Development

REPORT

I INTRODUCTION

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1.1 The Department of Higher Education, Ministry of Human Resource Development is responsible for the overall development of the basic infrastructure of Higher Education sector, both in terms of policy and planning. Under a planned development process, the Department looks after expansion of access and qualitative improvement in the Higher Education, through world class Universities, Colleges and other Institutions.

1.2 The Department of Higher Education is responsible for providing greater opportunity of access to Higher Education with equity to all the eligible persons and in particular to the vulnerable sections, expanding access by supporting existing institutions, establishing new institutions, supporting State Governments and Non-Government Organizations/civil society to supplement public efforts aimed at removing regional or other imbalance that exist at present, initiating policies and programmes for strengthening research and innovations and encourage institutions-public or private to engage in stretching that frontiers of knowledge, promoting the quality of Higher Education by investing in infrastructure and faculty and promoting the inclusion of the hitherto deprived communities.

1.3 The main functions of Department are Enhancement of Gross Enrolment Ratio by expanding access through all modes, promoting the participation of these sections of the society whose GER is lower than the national average, to improve quality and to promote academic reforms, setting up of new educational institutions and also capacity expansion and improvement of the existing institutions, use of technology in higher education, development of vocational education and skill development and international collaboration in the field of education,

II BUDGETARY ALLOCATION

2.1 The Secretary in his presentation before the Committee on 12th February, 2020 stated that projected demand of the Department was Rs. 58250.9 crore and the actual allocation was Rs. 39466.52 crore for the FY 2020-21 which is a shortfall of Rs. 18784.42 crore. The scheme/other than scheme clarification of Budget was given as-

| | |
|--------------------|--------------------|
| Scheme: | Rs. 10606.90 crore |
| Other than scheme: | Rs. 28859.62 crore |
| Total | Rs. 39466.52 crore |

2.2 The Department vide its detailed explanatory note on DFG 2020 submitted that the overall increase in the BE 2020-21 with respect to RE 2019-20 is Rs. 1149.51 crore which was an increase of 2.99%. The budgetary allocation at BE stage under the demand as a whole over the last three years and the provisions made for the financial year 2020-21 was given as under-

(Rs. In Crore)

| Financial Year | Budgetary Allocation at RE Stage | % Increase/decrease |
|----------------|----------------------------------|---------------------|
| 2017-18 | 33329.70 | ----- |
| 2018-19 | 35010.29 | 5.04 |
| 2019-20 | 38317.81 | 9.44 |
| 2020-21 | 39466.52 | 2.99 |

2.3 The Department also gave its expenditure position in FY 2019-20

(Rs. in crore)

| Financial Year | BE | RE | Actual | % Expenditure in r/o RE |
|----------------|----------|----------|----------|-------------------------|
| 2019-20 | 38317.01 | 38317.01 | 31113.16 | 81.20% |

Till 11th Feb, 2020

2.4 The Department also gave the scheme-wise expenditure for FY 2019-20 (Rs. in crore)

| S. No. | Name of scheme | BE 2019-20 | RE 2019-20 | Funds certified | % of certified with r/o RE |
|--------|--|------------|------------|-----------------|----------------------------|
| 1 | IITs | 6329.95 | 6329.95 | 5568.02 | 87.96% |
| 2 | Central Universities | 6713.40 | 7984.90 | 6441.45 | 80.67% |
| 3 | UGC | 4600.66 | 4420.66 | 3627.47 | 82.06% |
| 4 | RUSA | 2100.00 | 1380.00 | 1045.47 | 75.76% |
| 5 | Improvement in salary/scale of university teachers | 2000.00 | 1800.00 | 1493.16 | 82.95% |
| 6 | Interest subsidy and contribution for guarantee fund | 1900.00 | 1900.00 | 1584.97 | 83.42% |
| 7 | IIMs | 445.53 | 500.53 | 371.47 | 74.22% |
| 8 | IISER's | 899.22 | 841.22 | 691.48 | 82.20% |
| 9 | HEFA | 2100.00 | 2100.00 | 2100.00 | 100.00% |
| 10 | NITs& IEST | 3787.05 | 3547.05 | 2744.82 | 77.38% |

2.5 The Department further gave the allocation for the various schemes in BE 2020-21 with respect to RE 2019-20

(Rs. in crore)

| S. No. | Name of scheme | RE 2019-20 | BE 2020-21 |
|--------|--|------------|------------|
| 1 | IITs | 6329.95 | 7182.00 |
| 2 | Central Universities | 7984.90 | 7477.26 |
| 3 | UGC | 4420.66 | 4693.20 |
| 4 | RUSA | 1380.00 | 300.00 |
| 5 | EQUIP | | 1413.00 |
| 6 | Improvement in salary/scale of university & college teachers | 1800.00 | 1900.00 |
| 7 | Interest subsidy and contribution for guarantee fund | 1900.00 | 1900.00 |

| | | | |
|----|------------------------|---------|---------|
| 8 | IIMs | 500.53 | 476.00 |
| 9 | IISE | 841.22 | 896.00 |
| 10 | HEFA | 2100.00 | 2200.00 |
| 11 | Support for NITs& IEST | 3547.05 | 3885.00 |

2.6 The Department further submitted the actual expenditure for the last three years as given under.-

(Rs. in crore)

| Financial Year | BE | % increase/decrease | RE | % increase/decrease | Actuals | %increase/decrease |
|----------------|----------|---------------------|----------|---------------------|-----------|--------------------|
| 2017-18 | 33329.70 | 15.57% | 34862.46 | 17.89 % | 33656.51 | 16.04 |
| 2018-19 | 35010.29 | 5.04% | 33512.11 | 3.87 % | 31913.31 | -5.18 |
| 2019-20 | 38317.01 | 9.44% | 38317.01 | 14.34 % | 31113.16* | ---- |
| 2020-21 | 39466.52 | 3.00% | ----- | ----- | ----- | ----- |

*as on 11th February, 2020

2.7 The Committee finds that there is a huge gap between the projected demands and actual allocations made for the Department. Moreover, this reduced allocation of funds does not match with the objectives of expansion and growth of Higher Education Sector in the country and this would also defeat the endeavour to bring excellence in Higher Education. The Committee views that the allocation needs to be enhanced.

2.8 Further as regards the widening of gap between the projected demand and outlay for the FY 2018-19 the Committee conceives that Department should reconsider/review its overall mechanism right from making the proposed demand till the final expenditure is incurred and also assess the impact thereof in so far as the implementation of various schemes is concerned. This would be helpful in making the budget more realistic and making its presence felt on the plan outlay to be formulated for the Department.

2.9 The Committee notes that the allocation for Central Universities is inadequate as compared to their infrastructure, faculty and number of students enrolled. The Committee further notes that Central Universities have a larger number of students enrolled in them as compared to the technical and management institutes. Therefore, the Department should make efforts for increase in the funding for the Central Universities at appropriate level.

2.10 The Committee strongly feels this trend is certainly affecting the implementation of various schemes in the Ministry. The Committee therefore, recommends that the Department should reconsider/review its overall mechanism right from making the proposed demand till the final expenditure is incurred and also assess the impact thereof in so far as the implementation of various schemes is concerned.

2.11 The Committee, in view of the declining allocations combined with underutilization of budget allocations, expresses its serious concerns and recommends that the Department

should reconsider/review its overall mechanism in so far as the implementation of various schemes is concerned and bring in new ideas. This is high time to show high achievements in the growth/development of Higher Education Sector, if India were to compete with advanced countries in this regard. We have to achieve equity, access and excellence in Higher Education to overcome the existing inequality prevailing in the country as well as to bridge the urban/ rural divide. The Committee, however, also recommends to the Government to take seriously the growth and development of this sector and increase budgetary allocations as they are serving the needs of the society

III GROSS ENROLMENT RATIO (GER)

3.1 The Department submitted that India has an extensive higher education system with 993 universities and 39,931 colleges. The Department further submitted that in the last six years, the number of IITs has increased from 16 to 23 in 2020, IIMs have increased from 13 to 20 in 2020, NITs from 30 to 31 in 2020 and Central Universities from 42 to 43 in 2020. It was further added that total enrolment in higher education estimated to be 3.66 crore with 1.92 crore boys and 1.74 crore girls, where girls constitute 47.6% of the total enrolment.

3.2 The Department further added that GER in higher education was 26.3% in 2018-19 which was calculated for 18-23 years of age group. The GER for the last three years was given as under:-

| YEAR | GER OVERALL | GER-SC | GER-ST | GER-M | GER (F) | GENDER PARITY INDEX |
|---------|-------------|--------|--------|-------|---------|---------------------|
| 2018-19 | 26.3 | 23.0 | 17.2 | 26.3 | 26.4 | 1.00 |
| 2017-18 | 25.8 | 21.8 | 15.9 | 26.3 | 25.4 | 0.97 |
| 2016-17 | 25.2 | 21.1 | 15.4 | 26.0 | 24.5 | 0.94 |

It was also submitted that there was a sharp decline in the drop out ratio in Higher Education institutions as given below-

| Year | IITs (%) | IIMs (%) | Other Institutions (%) |
|---------|----------|----------|------------------------|
| 2017-18 | 1.71 | 1.03 | 6.76 |
| 2018-19 | 1.46 | 0.50 | 5.36 |
| 2019-20 | 0.68 | 0.78 | 2.82 |

3.3 The Department further added that distance education enrolment constituted about 11% of the total enrolment in higher education of which 42% were female students. The Department further added that 16142 students were enrolled in PhD which was 0.44% of the total student enrolment. The Department also highlighted the increase in enrolment due to the implementation of EWS reservation in admission in Central Education Institute (CEI's) in the table as under- (Annual Report)

| YEAR | ENROLMENT |
|---------|-------------|
| 2018-19 | 9.15 Lakhs |
| 2019-20 | 11.33 Lakhs |
| 2020-21 | 12.28 Lakhs |

3.4 The Department further added that to increase the GER of SC/ST students, UGC has provided various fellowships for SC/STs students to pursue higher studies. UGC provided the National Fellowship for Higher Education of SC/ST students funded by Ministry of Social Justice & Empowerment and Ministry of Tribal Affairs to pursue M.Phil and PhD (full time) degree in Science, Humanities, Social Science and Engineering & Technology in Indian Universities/Colleges/Institutions. There were 2000 slots per year for SC students and 75 slots per year for ST students. The Department further added that 1000 Post Doctoral Fellowship was also provided to SC/ST students every year.

3.5 The Committee appreciates the work done by the Department in increasing the Gross Enrolment ratio. The Committee, however, notes that the Gross enrolment ratio of SC/ST student is 23.0 and 17.2 respectively compared to the national average of 26.3. The Committee observes that in spite of various scholarships and initiatives taken up by the Department the GER of the SC/ST students has not reached to the level of national average. The Committee would like to reiterate that the Department should take steps to bridge the gap between the general category students and the SC/ST students but also take initiatives so that students from these sections do not leave their education in between.

IV NMEICT, SWAYAM, MOOCs

4.1 The Department submitted that it was administering 'National Mission on Education through Information and Communication Technology' (NMEICT) Scheme to leverage the potential of ICT, in providing high quality personalized and interactive knowledge modules over the internet/ intranet for all the learners in Higher Education Institutions in anytime anywhere mode. It was further submitted that NMEICT is one of the many schemes which is to be merged with Education Quality Upgradation and Inclusion Programme (EQUIP) of MHRD which is in the final stage of EFC. Since the EQUIP is yet to be approved, these schemes have been provided tentative funds till 2nd quarter of F.Y. 2020-21 subject to approval of M/o Finance. Hence the BE is currently shown as Rs.85 cr for 2020-21. In the event of finalization of EQUIP before end of 2020-21, this scheme would be merged in the overall budget of EQUIP.

4.2 The Department further informed about the various the projects sanctioned under NMEICT scheme:

a) Virtual Labs: The vision of the Virtual Labs Project is to develop a fully interactive simulation environment to perform experiments, collect data, and answer questions to assess the understanding of the knowledge acquired. In order to achieve the objectives of such an ambitious project, it is essential to develop virtual laboratories with state-of-the-art computer simulation

technology to create real world environments and problem handling capabilities. IIT Delhi as the Nodal institute with other 10 institutes is undertaking this initiative. There are about 275 such labs that are operational, with more than 2200 experiments and benefitted more than 18 lakhs students.

b) e-Yantra: e-Yantra is a project undertaken by IIT Bombay for enabling effective education across engineering colleges in India on embedded systems and robotics. The training for teachers and students is imparted through workshops where participants are taught basics of embedded systems and programming. Engagement of teachers and students in hands-on experiments with robots by way of competition-event is another innovative method of problem-solving with out-of-box solutions. e-Yantra also helps colleges to set-up Robotics labs/clubs to make it a part of their routine training curriculum. More than 2300 colleges across India have benefitted with this initiative. About 380 Labs have been setup and more than 7800 Teachers have been trained. All the projects and code are available on the e-Yantra web-site (www.e-yantra.org) as open source content.

c) Shodh Shuddhi: Shodh Shuddhi is a Plagiarism Detection Software (PDS). The project is being implemented by INFLIBNET Centre. The project has commenced from July 2019. The target fixed by the INFLIBNET Centre is 1053 Universities. Plagiarism Detection Software was launched by Shri Ramesh Pokhriyal 'Nishank', Hon'ble Minister for Human Resource Development, Govt of India, during the Special Session of Central Advisory Board of Education (CABE) on 21st Sep 2019 at Vigyan Bhawan, New Delhi in presence of 26 State Ministers, other MHRD and UGC officials.

d) ERP (SAMARTH): Department of Higher Education has mission to provide quality education to students across all Universities & HEIs. For this, ERP software will help in the HEIs to automate their functions & processes which in turn improve the functioning of these Institutions and bring transparency and quality improvements. This will also help centrally obtaining certain critical parameters from these Institutions using ERP for monitoring and formulation of new policies and guidelines for optimum utilization of Resources. The project has been launched recently and being implemented by University of Delhi. Target fixed by Delhi University is for implementation of ERP in 15 Central Universities by March, 2020.

f) Assimilation of Open Source Software in Sciences and Engineering (FOSSEE): Under the National Mission on Education through Information and Communication Technology (NMEICT), project FOSSEE has been envisaged to promote use of open source software in educational Institutions. It does through instructional material, such as spoken tutorials, documentation, textbook companions, awareness programmes, conferences, training workshops, and Internships. Textbook Companion (TBC) is a collection of code for solved examples of standard textbooks The Free and Open Source Software for Education (FOSSEE). This project sanctioned to IIT Bombay has been promoting use of open source software in educational institutions (<http://fossee.in>). About 2,000 college students and teachers have participated in this activity & close to 780 Institutions have been created in Scilab and made them available for free download.

g) Application of Spoken Tutorial: Spoken Tutorial Project is about teaching and learning a particular FOSS (Free and Open Source Software) like Linux, Scilab, LaTeX, PHP & MySQL, Java, C/C++, Libre Office etc. via an easy Video tool - Spoken Tutorials. The project is being implemented by IIT Bombay.

h) SWAYAM PRABHA- DTH Educational Channels: The SWAYAM Prabha has been conceived as the project for telecasting high quality educational programs through 32 DTH channels on 24x7 basis to reach out to student/learners of India with wide reach and minimal cost. It aims to support those students who do not have good learning options like lack of teacher or internet etc. It also aims to provide dedicated channels 'IITPAL' to assist the students of 11 and 12 standards aspiring to join premier educational institutions in the country. It also covers the

curriculum based higher/school educations covering diverse disciplines such as arts, science, commerce, performing arts, social sciences and humanities, engineering, technology, law, medicine, agriculture, etc.

Every day, there is new content for at least four hours which is repeated 5 more times in a day, allowing the student to choose the time of his convenience. After the telecast, all videos are hosted as archives on YouTube. Some channels also provide live interactions. There are over 3 lakh DTH connections set up to receive SWAYAM Prabha channels. 60,000 videos have been telecasted. There are more than 2 crore views on Youtube. SWAYAM Prabha project is managed by Chief Coordinator from IIT Madras. The channels are uplinked from the Teleport at BISAG Gandhinagar. INFLIBNET, Gandhinagar maintains the SWAYAM Prabha portal which provides the schedules of channels and other various information related to SWAYAM Prabha viz www.swayamprabha.gov.in

i) National Digital Library (NDL): The Department under its National Mission on Education through Information and Communication Technology (NMEICT) initiated the National Digital Library of India (NDL India) project to develop a framework of virtual repository of learning resources with a single-window search facility. It was formally launched by the Shri Prakash Javadekar, Hon'ble Human Resource Development Minister on 19.06.2018 at Vigyan Bhawan, New Delhi.

NDL is developed by IIT Kharagpur and is a national asset. The objective of the project is to integrate all the existing digitized and digital contents across educational and cultural institutions/bodies to provide a single-window access to different groups of users ranging across the entire population. NDL will fetch metadata of the contents and store and index these metadata in the National Digital Library servers so that all the e-contents can be searched and accessed in the full-text by users through a single window. NDL does not store the actual (full-text) contents in its servers; instead it gives to users' links of respective content hosting sites as part of search results. Users access contents from respective content hosting sites by clicking these links.

NDL (<https://ndl.iitkgp.ac.in>) has a Mobile App and is integrated with UMANG (Unified Mobile Application for New-age Governance). It can help the school students, UG, PG students, Research scholars and Lifelong learners and also has vernacular contents. It has a UNIQUE SEARCH Facility, where users will get the exact information of the availability of the relevant resources. It also facilitates access to differently abled users. Contents are available in different forms - Text / Audio / Video / Simulation / Graphics. As of now, the platform supports 8 languages (English, Hindi, Bengali, Gujarati, Odiya, Marathi, Tamil, and Kannada) and another 3 languages to be integrated soon. 6 lakh e-books from two publishers of national license content like World E-book Library (40 lakh+ books) and South Asian Archives (Journals, Articles) are also available for integration with NDL. 70 % of all the contents are Freely Downloadable and has 55 lakh + Registered users, 23 lakh + Active users. NDL also so far trained about 2000 librarians covering about 1075 Institutions for setting up IDRs, through Workshops

NDL is a library that aims to make a paradigm shift in education and research in India by enabling every citizen with the knowledge they need to empower themselves. By being a collection of links leading to content from Universities, Research Institutions, Journals and 250+ other relevant repositories, learners can locate multidisciplinary and interdisciplinary contents from premium educational sources using this platform.

SWAYAM

4.3 The 'Study Webs of Active Learning for Young Aspiring Minds' (SWAYAM) is a programme initiated by Government of India under NMEICT and designed to achieve the three cardinal principles of Education Policy viz., Access, Equity and Quality. It is an indigenous IT platform and portal for hosting online courses or MOOCs (Massive Open Online Courses). The Hon`ble President of India on 9th July, 2017 launched the SWAYAM platform, which can be accessed at <http://swayam.gov.in>. The courses for SWAYAM have been developed by faculty from the best HEIs of India with the aim to benefit lifelong learners, students, teachers, homemakers and researchers to use multimedia on anytime, anywhere basis for acquiring knowledge and skills.

4.4 It was informed that MHRD had identified nine National Coordinators for developing MOOCs from School to PhD level on the SWAYAM platform - NCERT for school education from 9th to 12th; NIOS for out of school children from 9th to 12th; Consortium for Educational Communication(CEC), an IUC of UGC, for Non-technology UG programmes; UGC for Non-technology PG programmes; IGNOU for Diploma and Certificate programmes; NPTEL for Technical/ Engineering UG & PG degree programmes; IIM for management programmes, AICTE for Self-paced MOOCs and NITTR, Chennai for Teacher Training programmes.

Till date, a total of 2,700 + Courses have been listed on SWAYAM and about 569 courses are on offer in January, 2020 Semester. The Department highlighted that 1.47 Cr Students / Learners have enrolled in various SWAYAM Courses and 6 lakh + certificates awarded/issued to the successful students clearing SWAYAM Exams .So far, 133 Universities / Institutions have recognized the SWAYAM Courses for credit transfer and many others are in the process of doing the same.

4.5 The Department informed that UGC and AICTE have issued 'Credit Framework for online learning courses through SWAYAM, Regulation 2016'; allowing upto 20% online courses taken through SWAYAM, to be counted for credit. Grades earned by successful students studying in conventional Institutes shall be transferred to the academic record of such students. It was further added that Under Career Advancement Scheme (CAS) of UGC, Creation of MOOCs or training through MOOCs is one of the eligibility criteria for promotion. More than 3,800 Local Chapters have been created in Universities / Institutions for creating awareness on SWAYAM through Workshops and Seminars. These Local chapters will help faculty and students to enroll, register on SWAYAM courses. Capacity Building Workshops are being organized to train and

sensitize faculty for technology usage in teaching and developing quality courses for SWAYAM. Online degree programmes are going to be offered by top ranking universities from January-2020.

4.6 The department informed that Specialized Programmes through SWAYAM like the Annual Refresher Programme in Teaching (ARPIT) of higher education faculty is also being offered through MOOCs under SWAYAM platform, for training maximum number of faculty and also to expose the teachers to technology enabled learning and 15 lakh untrained school teachers got trained under D.El.Ed programme of NIOS delivered through SWAYAM. It was further submitted that translation of SWAYAM Courses was done and some of the popular SWAYAM courses, including Transcription of Video, are being translated into Hindi and regional languages, so that learners can select a language of their choice and learn the courses better in their local language.

4.7 UGC, CEC and NPTEL are organizing Awareness creation workshop across the country. These workshops are well attended by the Vice Chancellors and teaching faculty from a number of Universities and colleges and TVCs, Radio Jingles, Posters, Individual Social Media campaign were created by UGC, AICTE and NPTEL were created for the SWAYAM Courses to reach among students through professional agencies.

4.8 The Department submitted that for adoption of these MOOCs Courses through SWAYAM platform, UGC requested Universities to obtain the approval of various statutory bodies of the Universities, and also ensure that the universities have the requisite academic and physical infrastructure to adopt MOOCs courses and assign course coordinator to hand hold the students in this process. One Hundred and Thirty three (133) Universities have come on board for accepting credit transfer for courses done through SWAYAM platform till today. State-wise summary of 133 Universities which have accepted SWAYAM MOOCs for credit transfer is as below:-

| South (43) | North (40) | East (8) | North-East (10) | Central (9) | West (23) |
|--|---|---|---|--|--|
| <ul style="list-style-type: none"> • Andhra Pradesh (3) • Tamil Nadu (20) • Karnataka (12) • Kerala (3) • Puducherry (1) • Telangana (4) | <ul style="list-style-type: none"> • Uttar Pradesh (10) • Punjab (10) • Haryana (6) • Jammu & Kashmir (4) • Himachal Pradesh (2) • Uttarakhand (5) • Delhi (3) | <ul style="list-style-type: none"> • Bihar (1) • West Bengal (5) • Odisha (1) • Jharkhand (1) | <ul style="list-style-type: none"> • Arunachal Pradesh (1) • Assam (3) • Manipur (1) • Nagaland (1) • Tripura (3) • Mizoram (1) | <ul style="list-style-type: none"> • Madhya Pradesh (8) • Chhattisgarh (1) | <ul style="list-style-type: none"> • Gujarat (5) • Maharashtra (10) • Rajasthan (8) |

4.9 A dedicated UGC MOOCs website:- <http://ugcmoocs.inflibnet.ac.in> has been created for inviting online MOOC proposals for Non-Technology PG courses. The proposals are invited

throughout the year. UGC constituted three Academic Advisory Committees one each on Humanities & Social Sciences, Visual & Performing Arts & Sciences respectively. The proposals which fulfill the eligibility criteria are placed before these Committees and the final decision is taken by the Academic Advisory Council on MOOCs.

4.10 It was informed that UGC as National Coordinator for Non-Technology Post Graduate MOOCs offered the following MOOCs on SWAYAM from July 2017 till December, 2019:

| Session | Total Course | Total enrolment | Exam Date | Total learner appeared for exam | Total Humanities & Social Science Courses | Total Science Courses | Learner score more than 40% |
|-----------------------------|--------------|-----------------|--|---------------------------------|---|-----------------------|-----------------------------|
| July-Oct, 19 | 43 | 1,25,819 | 9th -10th November 2019 | 7170 | 28 | 15 | 6084 |
| Jan-May 19 | 58 | 42,126 | 22nd -23rd May, 2019 | 2035 | 29 | 29 | 1295 |
| July-Dec-18 | 47 | 40,311 | 1st – 2nd December, 2018 (Online exam conducted by NTA). 19th -20th January, 2019 (Pen & Paper exam conducted by UGC) | 1848 | 26 | 21 | 928 |
| July17-March 18 (trial run) | 60 | 34,296 | | No exam conducted | 28 | 32 | No exam conducted |

4.11 A two day MOOC development workshop programme was organized from 15th -16th October, 2018 at IIM Bangalore for Course Coordinators developing Fresh MOOCs for the SWAYAM platform. To enable active participation of the Universities in SWAYAM, UGC requested every University to nominate a faculty member to act as a Single Point of Contact(SPOC) i.e. SWAYAM coordinator for the university and SWAYAM Mentor who would act as a Single Point of Contact(SPOC) for the Colleges. As on date total 211 SWAYAM Coordinator from Universities and 1815 SWAYAM Mentors from colleges have been identified so far. The institutions to which SWAYAM Coordinators and Mentors belong termed as SWAYAM Local Chapters. UGC conducted a one day orientation workshop on the roles and responsibilities of the University and its SWAYAM Coordinators, on 2nd February, 2018 in the AICTE Auditorium,

New Delhi. A dedicated Local Chapter page has also been created on the UGC MOOCS website:- <http://ugcmoocs.inflibnet.ac.in>

4.12 UGC has successfully conducted four one day regional workshops on "Awareness, Adoption & Promotion" of the MOOCs Courses offered on SWAYAM Platform. The participants included Vice Chancellors, Principals, SWAYAM Coordinators and SWAYAM Mentors (Local Chapters) and state government representatives from the Department of Higher Education. Presently UGC has transferred the National Coordinatorship of Non Technology PG Courses to CEC. Further, as per the 17th SWAYAM Board minutes held on 11.11.2019, under the Chairmanship of Secretary (HE) (MHRD), UGC will undertake Local Chapter activity that includes adoption and promotion of MOOCs Courses offered on SWAYAM.

4.13 The Committee was further informed that SWAYAM MOOCS is one of the many schemes which is to be merged with Education Quality Upgradation and inclusion Programme (EQUIP) of MHRD which is in the final stage of EFC. Since EQUIP is yet to be approved, these schemes have been provided tentative funds till 2nd quarter of FY 2020-21 subject to approval of M/o Finance. Hence BE is currently shown as Rs. 75.00 crore for 2020-21. In the event of finalization of EQUIP before end of 2020-21, this scheme would be merged in overall budget of EQUIP.

4.14` The Committee notes that SWAYAM MOOCS after a wide variety of courses to students for upgradation their knowledge/skills and feels that the Ministry should ensure that adequate funds and made available for it post merger with EQUIP so that the efforts made under it are not diluted.

e-Shodh Sindhu

4.15 e-Shodh Sindhu is a Central Sector scheme for aggregating the electronic journals being subscribed by various higher educational institutions and collective bargaining of prices. This is a consortium which provides access to quality electronic resources including full-text, bibliographic and factual databases to academic institutions at lower rates of subscription. The INFLIBNET Centre has been assigned the responsibility for execution and operation of e-Shodh Sindhu.

4.16 The e-Shodh Sindhu was sanctioned for Rs. 492.08 crores 2017 for a period of three calendar years, i.e. F.Y. 2017-18, 2018-19 and 2019-20 after a 3rd party evaluation by the NASSCOM, which found significant positive impact on higher education and recommended its continuation. On the basis of the roadmap provided by 3rd Party evaluation, eSS was modified so as to primarily work as a mechanism for joint negotiation of the price of the journals. The cost of the national resources for the centrally funded and State funded institutions was paid by the

Ministry. Resource subscription is taken annually and not financial year-wise, as the payment is made in January of the year for that year's subscription (e.g. Jan, 2020 for 2020 subscription)

ESS expenditure on e-Resources during the 2018 & 2019

| ESS expenditure on e-Resources (e-Journals and e-Database) during the 2018 to 2019 | | |
|--|-----------------|-----------------|
| | 2018 | 2019 |
| Expenditure for University/CFTIs | ₹ 125 Crores | ₹ 121.42 Crores |
| NLIST Colleges (3200) | ₹ 7.82 Crores | ₹ 8.19 Crores |
| SAA/WEL** under NDL | ₹ 23.38 Crores | -- |
| Total Expenditure | ₹ 156.20 Crores | ₹129.61 Crores |

The 17 centrally-paid e-resources for universities / CFTIs and 10 resources for colleges covered under NLIST for the year 2018 2019 and 2020 as per the details given below:

| Sl. No. | Name of Resource | No. of Titles | No of Inst. during 2018 , 2019 and 2020 | Category of Institutions |
|---|--------------------------------|---------------|---|--------------------------|
| 1 | JSTOR | 3000+ | 209 + NLIST | Univ. +CFTIs+ Colleges |
| 2 | EPW | 1 | 202 + NLIST | Univ. +CFTIs + Colleges |
| 3 | JGate Plus (JCCC) | DB | 194 | Univ. +CFTIs |
| 4 | Oxford University Press | 262 | 163 + NLIST | Univ. +CFTIs+ Colleges |
| 5 | ASME Journals Online | 29 | 56 | CFTIs |
| 6 | ASCE Journals Online | 36 | 50 | CFTIs |
| 7 | ACM Digital Library | 140 | 61 | CFTIs |
| 8 | AIP - eSS Collection | 19 | 128 + NLIST | Univ. +CFTIs+ Colleges |
| 9 | APS - eSS Collection | 13 | 126 | Univ. +CFTIs |
| 10 | ISID Database | DB | All | All |
| 11 | Web of Science/LA | DB | 150 | Univ. +CFTIs |
| 12 | Annual Reviews | 43 | 113 + NLIST | Univ. +CFTIs+ Colleges |
| 13 | Project Muse | 670 | 101 | Univ. +CFTIs |
| 14 | MathSciNet | DB | 90 | Univ. +CFTIs |
| 15 | Springer Link + Nature Journal | 1700+ | 200 | Univ. +CFTIs |
| 16 | Taylor and Francis | 1076 | 129 | Univ. |
| 17 | American Chemical Society | 49 | 109 | Univ. |
| For Colleges | | | | |
| 18 | Royal Society of Chemistry | 23 | NLIST | Colleges |
| 19 | Institute of Physics | 46 | NLIST | Colleges |
| 20 | H W Wilson | 3000+ | NLIST | Colleges |
| 21 | eBrary e-Books | 1.25 Lakhs | NLIST | Colleges |
| 22 | Indian Journals.com | 180+ | NLIST | Colleges |
| (For Eligible Universities and colleges CFTIs under National Digital Library | | | | |
| 23 | WEL | 30.00 lakhs | All | All |
| 24 | South Asia Archives | | All | All |

4.17 The number of institutions presently provided access to e-resources in (2018-2020) through central funding under different categories of institutions is as given below:

| Sl. No. | Category | 2018 -2020 |
|----------|--------------------------------------|--------------------|
| | | No of Institute(s) |
| 1 | 12 (B) / 2 (f) State Universities | 137 |
| 2 | Central Universities | 40 |
| 3 | Deemed Universities (UGC funded) | 22 |
| 4 | IUCs of UGC | 6 |
| 5 | National Law Schools/Universities | 12 |
| | Universities | 217 |
| 6 | IITs & IISc | 24 |
| 7 | NITs, SLIET & NERIST | 32 |
| 8 | IIMs | 20 |
| 9 | IISERs | 7 |
| 10 | SPAs | 3 |
| 11 | IIITs, IEST, NITIE, NIFFT and NITTTR | 11 |
| | CFTIs | 97 |
| A | Total University & CFTIs | 314 |
| B | Colleges under NLIST | 3200 |
| | Total (A+B) | 3514 |

4.18 The Committee points out that SWAYAM is a platform for new India where quality education is affordable and self-learning is fruitful not only for enrolled but also for professionals and dropouts. With quality content, best online lectures, great discussions, knowledgeable assessment quizzes, SWAYAM provides great opportunity to Indian students to learn without fearing from failure. It is a platform specifically designed to benefit students from remote area, working professionals as well as college dropouts. Students will get 'Verified Certificate' after successfully completion of courses. However, it is not clear if these certificates will be accepted for employment purposes. The Committee therefore, recommends that the Department should take steps to make sure that the certificate issued under SWAYAM is accepted by the industries.

V PANDIT MADAN MOHAN MALVIYA NATIONAL MISSION ON TEACHERS AND TEACHING (PMMMNMTT)

5.1 The Department in their submission before the Committee informed that the scheme of Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNMTT) was the culmination of the Government of India efforts in launching a comprehensive umbrella scheme aimed at improving the quality of education at all levels by infusing quality and excellence in teachers and teaching. The Scheme of Pandit Madan Mohan Malviya National Mission on Teachers & Teaching (PMMMNMTT) was launched on 25th December, 2014 with an outlay of Rs. 900 crore over the XII Plan. After the plan period got over, the Expenditure Finance

Committee (EFC) extended the Scheme duration up to March 2020 with an outlay of Rs. 450 crores.

5.2 It was submitted that the scheme is also implementing Government of India recommended flagship initiatives- LEAP and ARPIT along with regular components. The Mission was completing five successful years of its implementation. The current life span of the scheme is ending in March 2020. The gainful outcomes of the scheme included fortifying Teacher Education in higher education through various institutional and individual interventions like-

- i) Pre-Service Teacher Training - 660 teacher beneficiaries -B.Ed. standalone and integrated programmes and at PG level- 335 teacher educators M.Ed. Program
- ii) Specialised research in teacher education- specialized research of pre-service teacher education; teacher educator professional development etc.
- iii) Professional development, In-Service teacher/faculty training and capacity building – 1,25,000 beneficiaries from different training programs conducted by the Centres of Excellence in Curriculum & Pedagogy
- iv) Teaching Resources developed - Resources generated such as ICT related applications, e-content, pedagogic resources and assessment tools, software programmes, low cost infrastructure, e-content, course modules etc.
- v) Inclusive education and Special focus areas - focus on special education, women's University, teacher education in tribal areas, north-eastern region and educationally backward regions
- vi) Subject Based Networks - Four disciplines covered - Life Sciences, Ayurveda, Sanskrit and Environmental Microbiology
- vii) Annual Refresher Programme in Teaching (ARPIT) – Around 50,000 beneficiaries covered through training by NRCs accepted by UGC for CAS.
- viii) Faculty Induction Training Programme (FITP) - 5000 faculty covered through 62 approved centres and accepted by UGC Regulations for Career Advancement.
- ix) Leadership for Academicians Programme (LEAP) – 350 beneficiaries through 15 institutions (30 each) for the first round covered which include high level academic leaders such as Vice-Chancellors, Principals, HoDs etc.

5.3 The Department further submitted that the scheme was evaluated by NIEPA, New Delhi as third party after end of 12 plan period in March 2017. The scheme was recommended for continuation for further period till March 2020. The current life cycle of the scheme is till March 2020. In terms of efficacy, the scheme has achieved its objectives and keeping in view uniqueness and gainful outcomes, the scheme is proposed for continuation after competent approval based on the report of the third party evaluation by ASCI. The fund position of the scheme is as below-

(Rs in Crore)

| Year | 2017-18 | 2018-19 | 2019-20 |
|------------------------|----------------|----------------|----------------|
| Budget Estimates (BE) | 120 | 120 | 130 |
| Revised Estimates (RE) | 110 | 120 | 130 |
| Actual Expenditure | 72.69 | 102.3 | 64.46# |

for the funds are being released.

5.4 The Department submitted that the scheme has received an interim provision for six months with allocation of Rs. 50 crore and the scheme would require further funds as per expenditure after interim provision is exhausted and further demand would be raised at RE stage.

5.5 The Committee appreciates the steps taken by the Department under PMMMMNMTT to improve teachers training and teaching. The scheme provides them the opportunity to develop the required leadership and managerial skills, including skills of problem-solving, stress management, team-building, conflict management, better communication, understanding and coping with the complexity and challenges of governance in financial or administrative roles. The Committee, however, recommends that the Department should have clear roadmap for the amount of funds required for the implementation this scheme. The Committee feels that this scheme should not just be having four disciplines but also encompass other disciplines in social sciences, sciences & engineering to enhance the quality of teachers and teaching in them.

VI UNNAT BHARAT ABHIYAN & UCHCHATAR AVISHKAR ABHIYAN UNNAT BHARAT ABHIYAN

6.1 The Mission of Unnat Bharat Abhiyan is to enable higher educational institutions to work with the people of rural India in identifying development challenges and evolving appropriate solutions for accelerating sustainable growth. It also aims to create a virtuous cycle between society and an inclusive academic system by providing knowledge and practices for emerging professions and to upgrade the capabilities of both the public and the private sectors in responding to the development needs of rural India. Below mentioned is the current status of scheme till 2019-20:-

- i) Network of 2473 Participating Institute with 12365 villages in 33 states/ UTIs till date.
- ii) 10 Subject Expert Groups (SEGs) formed
- iii) Web based reporting, Registration portal and SEG portal developed.
- iv) 4245 Village level survey data available on web portal of UBA.
- v) 423254 Household level survey data available on web portal of UBA.
- vi) Proposals received under Different SEGs for technology Intervention: 850 and for Customization: 355.
- vii) 44 Regional Coordinating Institutions like: IITs, NITs, Agriculture Universities, and Central Universities etc are set up in the country.(every state in the country has at least 1 or more)

6.2 Unnat Bharat Abhiyan is an effort to bring unprecedented change in teaching and research programs by taking experts and students from higher educational institutions together to identify the real obstacles to the development of rural society. The major beneficiary is the rural

community in terms of improved living conditions by means of technological interventions (new or customized) by students/faculty of higher educational Institutes.

6.3 The prime focus of scheme is to improve the condition of rural part of country by leveraging the potential of higher educational Institutes. The idea is to engage the faculty/students of these institutes to fulfil the objective. By doing so the students/faculty also gets opportunity to gain knowledge of rural community. Under scheme, Institutes can engage as many as possible students and work on improvement of living conditions of rural community by providing solutions through rural field visits. It is proposed to increase the number of villages by engaging all higher educational institutes so as to increase the coverage of scheme. As if now, 12370 villages have been adopted by the 2474 participating Institutes.

UCHCHATAR AVISHKAR ABHIYAN

6.4 Uchchatar Avishkar Abhiyan (UAY) was announced in the IIT Council meeting held on October 6, 2015 with a view to promoting innovation of a higher order that directly impacts the needs of the Industry and thereby improves the competitive edge of Indian manufacturing. The project envisages collaboration between the academia and industry – within or outside India. The funding pattern of the projects selected would be 25% by Industry; 25% by participating Department/Ministry; and 50% by MHRD. Currently, 139 projects at a total cost of Rs. 370.97 crore with joint funding by MHRD, participating Ministries and Industry are currently under execution. MHRD has released Rs.150.00 crore, Participating Ministry/Department and Industry have released Rs.34.32 crore and Rs.53.64 crore respectively. National Coordinator of UAY *i.e.* IIT-Madras has informed that 8 UAY Projects have been completed. 50 will be completed by 2020 and 81 are ongoing. Nearly 15 institutes and 140 industry partners are involved. This scheme has resulted in filing of nearly 27 patents, publication of 210 papers and commercialization of 21 technologies till date. Under this scheme nearly 100 doctoral scholars have been recruited and students are associated in the projects as project staff/interns.

6.5 The Committee appreciates the objectives behind launching this educational and empowerment policy of Govt. As per the past studies, the students getting higher education in India are only having academic knowledge and lack the market exposure. Thus, they do not have a practical knowledge of the work that is really going on in the manufacturing units or the industrial plants.

6.6 The Committee feels that the Department should promote this scheme more aggressively as this would not only promote innovations in areas relevant to manufacturing

and design but also spur innovative mindset in students and faculty in premier technical educational institutions. The Committee further recommends that the Department should also help the faculty and students in patenting new technologies and process which are developed under this scheme.

VII FACULTY POSITION

7.1 The Department in its presentation before the Committee gave a status of faculty position in various higher education institutions (HEI's) as under:-

| Category | Total sanctioned | Vacant position as on 15.11.2019 | Current no. of position advertised as on 24.01.2020 | Cumulative appointments Since June 2019 |
|------------------------------|------------------|----------------------------------|---|---|
| NIT | 7,483 | 2,820 | 2,173 | 237 |
| SPA | 227 | 85 | 84 | -- |
| CU | 17,834 | 6738 | 6,706 | 934 |
| IIT | 9,655 | 2813 | 3,184 | 314 |
| IIT | 394 | 146 | 162 | 25 |
| IISER | 1285 | 159 | 191 | 100 |
| IIM | 1155 | 275 | 301 | 18 |
| Language | 647 | 185 | 97 | 138 |
| Other technical Institutions | 608 | 178 | 78 | 59 |
| Total (Central) | 39,288 | 13,399 | 12,976 | 1,825 |
| State University | 1,81,191 | 64,513 | 26,679 | 9,585 |
| Grand Total | 2,20,479 | 77,912 | 39,655 | 11,410 |

7.2 The details of vacancy of teachers and other staff in Central Universities under the purview of Ministry of Human Resource Development were also given:

(As on 01.01.2020)

| Category of post | Total Sanctioned Posts | Total Filled up Posts | Total vacant posts |
|------------------|------------------------|-----------------------|--------------------|
| Teaching | 18243 | 11555 | 6688 |
| Non-Teaching | 34928 | 22605 | 12323 |

7.3 The Department informed that the University Grants Commission (UGC) vide its D.O. letter No.F.1-14/2019 (CPP-II) dated 4th June, 2019 has prepared the Guidelines for Recruitment of Faculty in Universities, Colleges and Institutions Deemed to be Universities outlining the selection procedure and the time frame for recruitment which has been circulated to all Universities to adhere to the guidelines. The Universities have also been requested to take steps to ensure that the vacancies in the Universities are filled up at the earliest. Further, UGC vide its letter No.F.1-14/2019 (CPP-II) dated 31st July, 2019, 7th August, 2019, 5th September, 2019 and 22nd October, 2019 again requested to ensure that vacant positions in Universities are filled at the

earliest. So far Central Universities have filled up 934 teaching post and advertised 6706 teaching posts for recruitment since June, 2019. The Department further gave the latest faculty position in respect of IGNOU as follows:

| Total sanctioned post | | | Total number of vacant post | | | Steps taken to fill up the post |
|-----------------------|-----------------|-------------|-----------------------------|-----------------|--------------|--|
| Prof. | Associate Prof. | Asstt Prof. | Prof | Associate Prof. | Asstt. Prof. | IGNOU has already advertised the vacant posts in the month of September, 2019 and the necessary process to fill up the posts is on |
| 67 | 134 | 243 | 42 | 57 | 85 | |

The faculty position in 13 State Open Universities was also given:-

| Total Sanctioned Post | | | Total Number of Vacant Post | | |
|-----------------------|---------------------|---------------------|-----------------------------|---------------------|---------------------|
| Professor | Associate Professor | Assistant Professor | Professor | Associate Professor | Assistant Professor |
| 113 | 174 | 528 | 47 | 118 | 167 |

The Committee was also informed about the number of Students enrolled at Ph.D and M.Phil levels for the year 2017-18 & 2018-19 is given below:

| Year | Ph.D | | | M.Phil | | |
|---------|-------|--------|--------|--------|--------|-------|
| | Male | Female | Total | Male | Female | Total |
| 2017-18 | 92570 | 68842 | 161412 | 12287 | 21822 | 34109 |
| 2018-19 | 95043 | 74127 | 169170 | 11623 | 19069 | 30692 |

Source : AISHE Reports

7.4 In respect of IITs, the Committee was informed that there are 6009 faculties in position in IITs as against total sanctioned strength of 9718. The Department submitted that Indian Institutes of Technology (IITs) strive to maintain a faculty – student ration of 1:10. Vacancies of faculty in IITs are filled up on a continuous basis with suitably qualified candidates. The IITs have been taking various measures to attract quality faculty, which include, year around open advertisements, advertisements in international journals and appointment of NRIs and OCIs to faculty positions on the same terms as applicable to regular faculty. The details in respect of 31 NITs and IEST Shibpur was given as under:-

| | sanctioned strength | Faculty in position as on 23.01.2020 | Number of vacancies as on 21.01.2020 | No. of position advertised |
|--------------------------|---------------------|--------------------------------------|--------------------------------------|----------------------------|
| 31 NITs and IEST Shibpur | 7483 | 4754 | 2726 | 2173 |

7.5 The Department informed that due emphasis would be on filling up of approximately 2000 vacant faculty posts in all NITs / IEST to further improvise the quality teaching and boost research in these institutes. The RCE proposal of 6 new NITs has since been approved by the Cabinet, therefore, due importance as well as funds will be given to these new NITs for creation of infrastructural facilities at respective permanent campuses. The older NITs are availing loan under HEFA to further improve upon their existing infrastructure.

7.6 The Committee would like to point out that it may be justified to some extent large number of vacancies in the Central Universities set up in the past 3-4 years. But the shortage of teachers in old universities, some of them established many decades back clearly indicates that this issue has not engaged the attention of the concerned authorities in the right perspective.

7.5 There can be only two possibilities, either our young students are not attracted towards the teaching profession or the recruitment process is a prolonged one and involves too many procedural formalities. In either case, the Department being the nodal authority for the entire country so far as higher education sector is concerned has to take proactive role so as to expedite the filling up a sanctioned posts.

7.7 The Committee recommends that recruitment process should start well in advance before the post is vacated so that after retirement the newly recruited person takes up position immediately. The Ministry should work in tandem with Institutions to have this exercise done on yearly-basis and recruitment must be complete in advance so that shortage does not develop into crisis. At the same time, the Department should work out a strategy so as to attract the bright students to the teaching profession. The Committee also suggests that in order to make the teaching profession more attractive, the faculty should be encouraged to undertake consultancy and are given start-up financial support.

7.8 The Department along with UGC and the Universities should also provide an opportunity to the teachers to present papers in academic conferences seminars or participate in workshops; exchange knowledge and ideas; and the young faculty member to spend a short period of two weeks to two months at institutions of their choice for a better academic exposure.

VIII WOMEN EMPOWERMENT AND EDUCATION

8.1 The Department submitted that with a view to improving female enrolment in the B.Tech Programmes in IITs, a Committee under the Chairmanship of Director, IIT-Mandi was constituted by the Joint Admission Board (JAB) to suggest suitable measures. The recommendations of the Committee were accepted by the IIT Council in its 51st meeting held on 28.04.2017 and accordingly provision was made to increase female enrolment to 14% in 2018-19, 17% in 2019-20 and 20% in 2020-21 by creating supernumerary seats.

8.2 All the scholarship/fellowship schemes are open to female students but the following schemes are specifically meant for female students:

- i) The scheme of 'Swami Vivekananda Single Girl Child Fellowship for Research in Social Sciences' was started in 2014-15 to encourage women to pursue Ph.D. in Social Sciences

including Humanities and Languages. From the inception of the scheme, the number of slots has not been limited/fixed. All the applicants who are found eligible, are given fellowship to pursue research leading to award to Ph.D. For the selection year 2018-19, UGC has awarded the fellowship to 269 women. During the current Financial Year (upto 31.12.2019), an amount of Rs.385.00 lakh has been disbursed to the beneficiaries.

- ii) The scheme namely 'P.G. Indira Gandhi Scholarship for Single Girl Child' is in vogue since 2006-07 and envisaged to provide financial assistance to selected candidates who are Single Girl Child for pursuing Post-graduation on full time/regular basis in Higher Educational Institutions in India. Further, this also being an incentive scheme, there is no cap on the number of selections. Therefore, all the eligible applicants receive scholarship under this scheme. For the selection year 2018-19, UGC has selected 2445 girls under the scheme. During the current Financial Year (upto 31.12.2019), an amount of Rs.22.00 lakh has been disbursed to the beneficiaries.
- iii) The scheme of Post Doctoral Fellowship for Women, which was launched in the year 2012-13 is also being run for facilitating female students. Under this scheme, there is provision of providing 100 fellowships to unemployed women candidates holding Ph.D. Degree for pursuing research in their respective subject areas with an aim to accelerate the talented instincts of the women candidates to carry out the advanced studies and research. During the current Financial Year (upto 31.12.2019), an amount of Rs.1888.00 lakh has been disbursed to the beneficiaries.

8.3 The Committee observes that Higher education provided to women would mean independence in decision making and economic independence. It would develop capabilities to discharge duties and responsibilities in the fields of social, economic, political and cultural grounds.

IX GLOBAL INITIATIVE OF ACADEMIC NETWORKS (GIAN)

9.1 The Department submitted that Global Initiative of Academic Networks (GIAN) in Higher Education was launched on 30th November, 2015. The programme seeks to invite distinguished academicians, entrepreneurs, scientists, experts from premier institutions from across the world, to teach in the higher educational institutions in India. The Scheme envisages garnering the best international experience into our systems of education, enabling interaction of students and faculty with the best academic and industry experts from all over the world.

9.2 Under this programme the international faculty would conduct one to two week course at an Indian institution. The upper limit of overall expenditure allowed for each such course is \$8000 for 12-14 hours and \$12000 for 20-28 hours course. IIT Kharagpur is the national coordinating institute for GIAN and Director IIT Kharagpur is the National Coordinator for GIAN Scheme. A GIAN Implementation Committee headed by Secretary (HE), Ministry of Human Resource

Development (MHRD) and 13 Sectional Committees for 13 different disciplines have been constituted to finalize and approve various courses and also to decide on budget allocation.

9.3 Till date 1956 courses have been approved by the Apex Committee. Out of these 1839 courses, 1577 courses have already been organized in which 1451 foreign faculties & industry experts had participated and Collaboration with 56 countries was going on to attract the best international talent. Most of the courses are video recorded and some of them were also live webcasted depending on the available infrastructure and consent of the foreign faculty. It was informed that this enables others to view the content later through the local and national GIAN portal and the National Digital Library. Student/participants registration facility is open in the GIAN portal for the students from all over India to register for the courses. The budget allocated for GIAN is as follows:

| (Rs. in crore) | | | |
|----------------|----------------|-------------------------|-------------------------|
| Year | 2018-19 | 2019-20 (BE) | 2020-21 (BE) |
| Amount in Rs. | 30 | 30 | 15 |

9.4 The Department informed that more than 45000 participants have participated in GIAN Courses so far. The Department submitted 13 areas in which GIAN courses were conducted such as Architective Design & Planning (ADP), Chemical, Biochemical & Material Science (CBM), Earth & Environment Sciences (EES), Electronics, Electrical, Information & Communication Technology (EIC), Humanities Liberal Arts (HLA), Law, Life Sciences & Healthcare (LSH), Mathematical & Computer Sciences (MCS), Management, Mechanical Sciences (MMT) & Information's (MEI), Physical Sciences (PSC) and Social Sciences (SSC) and other interdisciplinary categories .Top five areas in which GIAN Courses have been conducted was given:-

| S.No. | Course area |
|--------------|---|
| 1 | Electronics, Electrical, Information & Communication Technology (EIC) |
| 2 | Mechanical Sciences & Infrastructure (MSI) |
| 3 | Mathematical & Computer Sciences (MCS) |
| 4 | Chemical, Bio-Chemical & Material Sciences (CBM) |
| 5 | Physical Sciences (PSC) |

9.5 The Department also informed about the top group of institutions which have benefitted from GIAN Courses:-

| S.No. | Name of institution |
|--------------|--|
| 1 | Indian Institutes of Technology (IITs) |
| 2 | National Institutes of Technology (NITs) |
| 3 | UGC State Universities |

| | |
|---|----------------------------|
| 4 | Central Universities (CUs) |
| 5 | AICTE Engg. Colleges |
| 6 | IISc, IISERs |
| 7 | IITs, IIEST, SPA, ISI |
| 8 | IIMs |

Top five countries from which professors have come to deliver GIAN courses were also given:-

| S.No. | Name of Country |
|-------|--------------------------|
| 1 | United States of America |
| 2 | United Kingdom |
| 3 | Germany |
| 4 | Australia |
| 5 | Canada |

9.6 The Committee appreciates this new initiative to invite distinguished academicians, entrepreneur's, scientists, experts from premier institutions from across the world to teach in higher educational institutions in India, hence promoting international collaborations and improvements in quality of higher education in India.

X HIGHER EDUCATION FINANCING AGENCY (HEFA)

10.1 The Department submitted that to give a big push for building up robust higher educational institutions, the government set up the Higher Education Financing Agency (HEFA) in joint collaboration with Canara Bank with an authorized capital of Rs. 2000 crore.

10.2 To improve the infrastructure of the Central Universities (CUs), the proposal of the following universities is under active consideration of this Department to provide loan through Higher Education Financing Authority (HEFA):

| S.No. | Name of CU | Amount of proposal (Rs. In crore) |
|-------|---|-----------------------------------|
| 1 | Rajiv Gandhi Univ. Ar. P | 66.59 |
| 2 | Rajasthan CU | 97.80 |
| 3 | Karnataka CU | 131.89 |
| 4 | Tamil Nadu CU | 95.20 |
| 5 | Pondicherry CU | 206.94 |
| 6 | Maulana Azad National Urdu University (MANUU) | 75.93 |
| 7 | University of Hyderabad | 33.90 |
| 8. | Mizoram CU | 153.738 |
| 9 | JNU | 455.00 |
| 10 | Nagaland CU | 112.27 |
| 11 | Tripura CU | 202.24 |
| 12 | JMI | 423.30 |
| 13 | GGV Bilaspur, MP | 60.60 |
| 14 | Sikkim CU | 402.00 |
| 15 | IGNTU | 147.11 |
| | Total | 2664.508 |

10.3 The Ministry has been disbursing funds for improving the quality as well as infrastructure facilities in higher education institutions through Higher Education Financing Agency (HEFA) since 2018 as a part of RISE by 2022. The target is to fund projects to the tune of Rs. 100,000 crore by 2022. As a part of this initiative, the Ministry envisages to expand the scope of HEFA to include apart from the centrally funded higher educational institutions, higher education institutions funded by the state governments, deemed universities and institutions set up under the PPP mode. Further, the terms on which loans are provided under HEFA for infrastructure development in higher educational institutions are envisaged to be revised, keeping in mind the purpose of funding and the revenue generation capacity of the projects, instead of the present system which is based on the age profile of the institutions. These initiatives are envisaged to improve the funding and development of state of the art infrastructure and research facilities in higher educational institutions across the country. The Department further added that the said HEFA modification proposal is presently with the Ministry of Finance for in-principle approval.

10.4 The Committee appreciates the steps taken by the Department for building and improving the infrastructure in Higher Educational Institutions. However, the Committee would like to point out that after the disbursal of loan the Department should have a monitoring mechanism for the expenditure of the funds provided to institutions. The Committee further recommends that the funds under HEFA should not just be used for revenue generation projects but also for enhancing the research output in HEI.

XI SCHOLARSHIPS

11.1 The UGC is implementing various schemes under which financial assistance is provided in the form of fellowship to meritorious students/scholars for different sections of society for pursuing research leading to award of M.Phil./Ph.D. The names of the Doctoral research Fellowship schemes along with the slots for each selection year is given as under:

| S.No | Name of scheme | Slots |
|------|---|--------|
| 1 | Junior Research Fellowship in Science, Humanities and Social Sciences | 9400 |
| 2 | Swami Vivekananda Single Girl Child fellowship for Research | No cap |
| 3 | Maulana Azad National Fellowship for Minority Students | 1000 |
| 4 | National Fellowship for Students of Other Backward Classes (OBC) | 1000 |
| 5 | National Fellowship for SC candidate | 2000 |

The revision of emoluments for research personnel engaged in R&D programme of the Central Government Departments/Agencies was done vide this Ministry's O.M. dated 31.01.19.

11.2 The rate of non-NET fellowship revised in 2009 with the approval of the Commission is as under:-

| S.No. | Particulars | Old rates | New rates |
|-------|---------------------------------|---|-------------------|
| (i) | Fellowship for fulltime Ph.D.. | Rs.5000 per month | Rs.8000 per month |
| (ii) | Fellowship for fulltime M.Phil. | Rs.3000 per month | Rs.5000 per month |
| (iii) | Contingency | Rs.10,000/- p.a. for Science subjects and Rs.8000/- p.a. for Humanities & Social Sciences | No change |

The numbers of beneficiaries of Non-NET M. Phil. /Ph.D. Fellowships during the last 4 years are as under:-

| Year | No. of M.Phil./ Ph.D. Beneficiaries | Expenditure (Rs. in crores) |
|---------|-------------------------------------|-----------------------------|
| 2015-16 | 15398 | 107.77 |
| 2016-17 | 16558 | 115.72 |
| 2017-18 | 15382 | 105.41 |
| 2018-19 | 15542 | 111.48 |

11.2 Regarding the applications received by UGC from students studying abroad seeking scholarships, the Committee was informed that as per the provisions mentioned in the Indo-Hungarian Educational Exchange Programme (EEP), signed between the Ministry of Human Capacities of Hungary and The Ministry of Human Resource Development of the Republic of India on 19th November, 2014, the Hungarian Government offers scholarships for 200 Indian students to pursue higher education in Hungary. UGC invites applications from Indian students to pursue graduate, post-graduate and doctoral studies in Hungary, and nominates students for the scholarships. However, final selection of the candidates for scholarships is made by the Hungarian Higher Education Institutions. Year-wise details of the scholarships are as follows:

| Year | Applications received | Scholarships awarded |
|---------|-----------------------|----------------------|
| 2017-18 | 399 | 175 |
| 2018-19 | 562 | 166 |
| 2019-20 | 635 | 178 |

The EEP also provides for 35 scholarships to Hungarian students to be offered by India and Scholarships availed by the Hungarian students in 2017-18 was 4 scholarships, 2018-19 was 3 scholarships and in 2019-20: Nil

11.3 Regarding the scholarship for differently abled persons it was informed that the Department of Empowerment of Persons with Disabilities, Ministry of Social Justice & Empowerment has a scheme namely 'National Fellowship for Persons with Disabilities' for

providing fellowship to divyang scholars for pursuing M.Phil./Ph.D. The UGC is facilitating the selections of 200 scholars under the scheme. The fellowship is being disbursed directly by the Ministry itself.

11.4 The UGC has issued directions vide letter no 6-1/2018(SCT) dated 11.01.2019 and 11.06.2019 to all Grant-in –aid Institutions/ Universities for adoption and implementation of Harmonized Guidelines and Space Standards for Barrier Free Built Environment for Persons with Disability and Elderly Persons, developed in February,2016 by Ministry of Urban Development, Govt. of India to make existing buildings barrier free and accessible for PwD and the aforesaid guidelines shall also be followed during the approval of the plan and DPR in cases of new buildings. UGC has also directed all the Grant-in –aid Institutions/ Universities to form an Internal Committee comprising teachers, staff, students and parents for taking care of day to day needs of differently-abled persons.

11.5 The Committee observes that all these Schemes are meant for providing an opportunity to students belonging to marginalized sections to get proper coaching so as to enable them to compete for higher studies and become eligible for teaching in higher educational institutions and for getting gainful employment in Central/States/ private sector services. The objective behind all these Schemes is laudable. The Committee can only emphasize that these schemes need to be administered in the real sense, with the benefit reaching the targeted beneficiaries.

11.6 The Committee finds it satisfactory that a number of initiatives have been taken for integrating the differently-abled students towards mainstream higher education. These initiatives are indeed major steps for providing equal opportunities to such students. The Committee, however, feels that initiatives will have more impact if awareness about such facilities is dissipated among the targeted students. Every conceivable effort has to be made to sensitize such students towards the kind of opportunities waiting for them. Details of all schemes for differently-abled students should be mandatorily displayed on the websites of UGC, AICTE and IGNOU and also all categories of universities. In addition, strict and constant monitoring at all levels is also required so as to ensure that all such initiatives for differently-abled students are being implemented in the real sense.

XII NEW INITIATIVES

12.1 The Committee was informed about the new Education Quality Upgradation and Inclusion Programme (EQUIP) envisaged by MHRD. The Department submitted that it is an overarching program, which sets out to deliver further on the principles of access, inclusion, quality, excellence, and enhancing employability in higher education. For this scheme, an initial budgetary

provision of Rs. 1413 Cr has been kept in F.Y. 2020-21. Further budgetary provision shall be made after appraisal and approval of the scheme by the competent authority. The Department submitted that the following schemes are proposed to be merged in EQUIP:

- (i) Setting up of inter-institutional Centres, Creation of Excellence Clusters & Network, and Establishing Alliances across Institutions.
- (ii) Training & Research in Frontier Areas
- (iii) Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)
- (iv) Support for Skill-Based Higher Education including Community Colleges
- (v) National Mission in Education through ICT
- (vi) Setting of Virtual Classrooms and Massive Open Online Courses (MOOCs)
- (vii) e-Shodh Sindhu
- (viii) National Digital Library
- (ix) Uchhater Avishkar Abhiyan
- (x) Scheme for Promotion of Academic and Research Collaboration (SPARC)
- (xi) Scheme for Transformational and Advanced Research in Science (STARS)
- (xii) Implementation of the IMPRINT Research Initiative (Impacting Research Innovation & Technology)
- (xiii) Impactful Policy Research in Social Science (IMPRESS)
- (xiv) PM Research Fellowship (PMRF)
- (xv) RUSA
- (xvi) National Initiative for Design Innovation
- (xvii) Global Initiative for Academic Network (GIAN)

12.2 The Department submitted that the UGC has adopted the quality mandate. The ten verticals initiated by UGC in pursuit of quality improvement are as follows:

- a. Induction programme for students
- b. Learning outcome-based curriculum framework – revision of curriculum in regular intervals
- c. Use ICT based learning tools for effective teaching-learning process
- d. Soft skills for students
- e. Social and Industry connect for every institution: Every institution shall adopt at least 5 villages for exchange of knowledge and for the overall social/economic betterment of the village communities
- f. Examination Reforms – test the concept, and application; exit examinations
- g. Tracking of the student progress after completion of course
- h. Induction training for all new teachers and annual refresher training for all teachers – role of the NRCs; and mandatory leadership/management training for all educational administrators
- i. Promoting quality research by faculty and creation of new knowledge
- j. Mentoring of non-accredited institutions, so that every institution can get accreditation by 2022.

12.3 For achieving the objectives of the Quality Management, the following reports/guidelines have been published by UGC in 2019-2020.

(a) Induction Programme for Students (Deeksharambh) :

These guidelines have been launched on 18.07.2019 by UGC to implement student induction programme as a scheme with financial assistance. This scheme targets the fresh students so that they can build bonds with other students and faculty members and inculcate the ethos and culture of the institution.

(b) **Learning Outcome-based Curriculum Framework (LOCF)**

In order to institutionalize an outcome-oriented higher education system and enhancing employability of graduates through curriculum reform based on a learning outcomes-based curriculum framework, UGC has taken initiative to develop Learning Outcome based Curriculum Framework (LOCF) for 37 subjects. During 2020-21, UGC plans to complete LOCF for the remaining subjects also and take steps to initiate in Universities and colleges.

(c) **Jeevan Kaushal (Life Skills):**

Following initiatives are envisaged in 2020-21 to promote Jeevan Kaushal (Life Skills)

- To launch Facilitator's manual for teacher on Jeevan Kaushal
- To develop new MOOCs course on Jeevan Kaushal
- To provide training through service providers

12.4 The Department informed that for improving quality of research UGC plans to establish a National Board to conduct Examinations On-Demand and to develop a software for HEIs to expedite proper implementation of the reforms. UGC also plans to prepare a document on Good Academic Research Practices which would cover various stages of research life cycle and outline the model role of the institution and researchers at each stage

12.5 The Department also informed about the Initiatives planned in 2020-21 for tracking the students after the completion of the course according to the document on 'Student Career Progression and Alumni Network' as follows:

- To provide seed money to eligible institutions, to establish and maintain an active alumni-relations wing, including its alumni association
- To conduct regional workshop for creating awareness on 'Student Career Progression and Alumni Network'
- To develop a centralised database platform
- To create a suitable cell to sanitise the universities and help coordinate their activities

12.6 The Department further informed about social and industry connect for every institution and submitted that recognizing University-Industry (U-I) collaborations as the key enabler to promote innovative ecosystem in the country, the working group Report on 'Enabling and Enhancing University and Industry Linkages' suggested following steps for UGC to initiate in coming year:

- To set-up fully funded three 'U-I Linkage Policy Research Centers' at three different locations
- Enabling an ecosystem where Universities with good research facilities and expert faculty could provide the required R&D support for MSMEs enabling them to compete in the marketplace
- To create a supportive environment to attract faculty to applied research to catalyze enhanced interaction between university and industry.

12.7 The Committee points out that EQUIP is going to integrate seventeen programmes under it. The Committee emphasizes that each of these programmes were created with particular segment to be targeted. The Committee would like to emphasize that if all the programmes are subsumed under a single programme, the emphasis and attention to each

initiative should not get lost. The Committee also points out that one of the flagship programmes like RUSA which is going to be merged into EQUIP targets the development of state universities and colleges to upgrade themselves both in terms of academics and physical infrastructure. The Committee understands that this scheme was launched to help the State universities/colleges to upgrade this infrastructure which would go a long way in improving the standard of Higher Education in the country. The Committee, therefore recommends that even after subsuming of this scheme under EQUIP, the Department should make sure that the required allocations are used for achieving the desired results.

12.8 The Committee further points out that the other schemes which are going to be subsumed in EQUIP should be given the same importance as when they were stand alone schemes. The Committee also emphasizes that these schemes are necessary for the improvement of Higher Education in the country and the Department should ensure that the allocation for the EQUIP scheme should be in line with the overall target of achieving quality, excellence and access in Higher Education.

XIII CONCLUSION

13.1 The Committee considers Higher Education as an increasingly global enterprise; hence Indian institutions should embrace internationalization that could provide them with new opportunities. While most of our universities and colleges are required to build human resources to reach desired levels of competence, we also need to go beyond this to ensure that the country has several institutions of higher education that strive to achieve excellence in both teaching and research. Universities and colleges should be encouraged to engage more intensively than before with wider society and contribute to local and regional development and provide intellectual leadership to society.

13.2 The Committee feels that few universities and institution should be converted or upgraded by creating centres of excellence within the universities/institutions building on their existing strength. Accreditation should be at core of regulatory arrangement and must have clear incentives and consequences. There should be more funding for university based research and policies that create right incentives for quality research and promote collaboration among institutions.

13.3 The Committee further adds that quality assurance in higher education has to become top of policy agenda and education has to prepare graduates with new skills, broad knowledge base and a range of competencies to enter a more complex and interdependent world. Quality is a multi-dimensional concept and several mechanisms for quality assurance and management at individual and institutional level are needed. The Committee further

points out that system of accountability and accreditation with a robust regulatory mechanism are essential to the process of sustaining and improving quality and developing performance indicators and benchmarks for assessing outcomes in higher education. The Committee accordingly, urges upon the Department of Higher Education to take all measures so as to ensure the quality in higher education matches will the global standards.